

As Governor Sununu will be holding hearings on NH energy choices, may I humbly request that he consider:

1. Offshore wind taskforce
2. To uphold the Paris Climate agreement for our state
3. Halt any new fossil fuel infrastructure

Roger Burkhart Rochester, NH 03867

We cannot enjoy our first amendment rights without clean water and air. Your children and grandchildren will inherit a cesspool. Why do we need to pursue these dirty technologies when green energy is at our fingertips. Don 't worry there is still money to be made. The compact we call our constitution enshrines our rights to life, liberty and the pursuit of happiness but without a safe environment we shall have none of the above.

Lynda Dobens

Step 1. Governor Sununu needs to ask the Bureau of Ocean and Energy Management to assemble a task for to explore the viability of offshore wind energy in the Gulf of Maine.

Step 2. Adhere to the Paris Accord.

Step 3. No new fossil fuel infrastructure of genocidal hydro-power (Northern Pass).

Sincerely,
Tyler McFarland

Dear Officers of Strategic Initiatives & Energy Strategy:

It is critical that the Governor and the new staff at OSI understand that the majority of New Hampshire citizens want more clean energy and good policies to support renewable energy, energy efficiency, and a better, cleaner, transportation sector.

Earlier this year, China announced that by 2020 it would invest \$360 billion into clean renewable energy, creating over 10 million clean energy jobs in that country over the next three years. While the United States continues to debate the reasons for climate change, China is aggressively investing in clean energy manufacturing. The Paris climate accord includes 195 nations, committed to begin reducing their use of fossil fuel. After President Trump decided to pull the U.S. from that accord, countries around the world restated their commitment to it. That represents a business risk at our national and state level. According to Department of Energy jobs data, the number of U.S. clean energy jobs producing electricity outnumbered those in the fossil fuel industry.

New Hampshire was willing to spend a lot of taxpayer money on the Seabrook nuclear power plant 40 years ago. Whether you agree or disagree with our scientists on global warming, we can no longer ignore the economic opportunity for American business in the global clean energy market. New Hampshire taxpayer money should be invested in solar & wind programs, even geothermal energy investment, which will bring jobs and young professionals and engineers to the area, where they can buy houses and raise their families. The more young families we attract, the greater the tax revenue will increase for schools, road & bridge construction, etc. Millennials typically want to buy a nice house at an affordable price, especially in an area that has clean drinking water at the tap, is environmentally friendly and efficient, and has excellent schools, parks, and outdoor activities (among the top concerns for most young adults these days planning to start a family, as any survey of “Millennials” proves).

If New Hampshire wishes to continue to be a respectable place to live for young professionals, a place that young families can be proud to buy homes in, then we must hasten to invest in clean energy companies and solutions. We have a beautiful state and, if we treat our environs better, our state will prosper on multiple levels.

Sincerely,
Derek H. Haddad

Dear Office of Strategic Initiatives,

As concerned New Hampshire residents who are unable to attend your two planned public hearings in Concord and Portsmouth on October 17th and 19th, respectively, we are writing to encourage you to do what you can to promote the further development of renewable energy in New Hampshire.

Science is a very powerful tool for making America great. Ignoring science, on the other hand, can be a very disruptive force. We both have science training and agree with the 97 percent of scientists who say we must move away from fossil fuels quickly in order to preserve our New Hampshire climate. (If we don't we'll have the climate of South Carolina later this century.)

With this in mind, we are asking you to please do what you can to either **do**, or **facilitate** the following five things:

1. Encourage Governor Sununu to **request an offshore wind task force** from the Bureau of Ocean Energy Management. This is the first step in bringing offshore wind to NH--something that will help our state to achieve a larger portion of renewable energy use.
2. See that New Hampshire joins the growing list of states and other sub-national entities that have committed to **upholding the Paris Climate Accord by reaching 100% renewable energy for our state by 2050**.
3. **Halt any investment or construction of new fossil fuel infrastructure** in New Hampshire. The fossil fuel era has ended, and spending money on such infrastructure is wasteful.
4. **Keep New Hampshire as an active participant in the Regional Greenhouse Gas Initiative (RGGI)**, to help reduce carbon dioxide emissions in the Northeast, while furthering the development of renewable energy among households and businesses.
5. **Increase New Hampshire renewable portfolio standards, and renewable energy incentives**, to bolster what RGGI does to help us move towards more solar and other renewable energy.

All of these steps, and more, are needed to preserve the things we love relating to New Hampshire's current climate for our kids. These include autumn foliage, fishing (cold water species), gardening, hunting (moose and other threatened species), ice fishing, maple sugaring, skating, skiing, snowmobiling, and so on.

Again, please do what you can to keep our state moving in the right direction--towards a clean, renewable energy future. Thank you!

Sincerely yours,

Roger & Susan Shamel

Hillsborough, NH 03244

Uphold the Paris Climate Accord. Join the states that are backing renewable energy.

Personally we have gone solar and all our energy is generated by our solar panels. The grants and tax rebates made it possible for us to afford this. Please continue these incentives.

Katherine Thorndike
North Sandwich, NH

Dear Governor Sununu,
I am thrilled to hear that you are interested in knowing what we folks from NH want for our future energy sources. With an viably renewable-rich State, we are so fortunate to be able to lead the path toward the future, and away from solely fossil fuel dependence. Thank you for hearing us. Please help us to develop solar, wind, and water options.
Sincerely,

*Joan Holcombe
Enfield, NH 03748*

To: The NH Office of Strategic Initiatives

I'm an 82 year old resident of The Woodlands at Alice Peck Day. I began teaching environmental ethics as a young philosophy professor in 1971, prompted by the revelations of the first Earthday activities and publications. Since my retirement in 2000 I've watched the accumulating, incontrovertible evidence that dependence on fossil fuel energy sources is very harmful in many ways to our planet and its peoples, especially to those least responsible for global warming. Recently I have become aware of the job-producing value of investing in clean energy. I encourage you to consult the study carried out at Brown University by Heidi Garrett-Peltier (now Asst. Research Professor, UMass, Amherst) under the title "The Job Opportunity Cost of War." The author's research focus is on the employment effects in the U.S. of various military and domestic spending priorities, including spending on clean energy.

Respectfully,
/Bob Schultz
Professor Emeritus, U. of Washington

Plans for the future should not be based on experiences of the past.

We live in volatile times on a planet with finite resources and a *Homo sapiens* population that is increasing exponentially and blind to the consequences of this disparity.

Planning for the days, weeks and months immediately - not years - ahead are the only ones reflecting the reality of our immediately looming worldwide environmental catastrophe.

Robert W. Christie

As the founder of the Transition initiative in Exeter, NH I am writing to encourage the OSI to explore all options possible for a ROBUST clean energy economy for NH. Our town and others are asking for this. Please read a few recent points below:

- Know that the selectboard of Exeter issued a proclamation in support of the principles of the Paris Agreement, because the townsfolk lobbied for it. Citizens support clean energy and energy efficiency measures because it is good for families, towns, jobs, and environmental justice.
- Celebrate that Exeter was a pilot town for Energize360.org this summer and that a community building (to be voted on) will soon be gifted with a free set of solar panels and insulation work.
- Witness that ReVision Energy has offices in our town adds jobs at a very quick pace, and that offshore wind farms would do the same.
- Understand that our excellent supply of offshore wind would create a resilience for our region in the face of energy shocks and extreme weather.
- Absorb the fact that the sea is warming and rising and this will create havoc in coastal towns, as well as the fishing industry – the lobsters just keep moving further and further north and pretty soon they will all be in Canada.

It is absolutely a win-win for both the economy of NH as well as the earth as a whole if NH can be as forward thinking as possible in transitioning to a clean energy leader. Instead of knee-jerk response to climate and outdated-grid disasters, we can be sitting on top of a thriving economy. I say go for it!

Thanks for reading,

Renay Allen

Dear Governor Sununu and Office of Energy Planning,

I wish to offer public comment regarding the future of energy policy in New Hampshire.

It saddens me that this issue has become a divisive one in our country. I urge you and all people entrusted with governing responsibility to lead our state and nation away from the use of energy resources that the vast majority of science research indicates endanger our future well-being. I urge you to take a strong and brave position even in the face of business self-interest. This is a matter that supersedes next year's profits, that requires the generosity and sacrifice of all us, because all will pay the price if we do not act.

Sincerely,

Allyn Field



Please!!
Marjorie Moorhead

To whom it may concern:

New Hampshire needs renewable energy and the jobs that go with it. Please don't harness our economy to a dying technology as you formulate the new strategic plan.

Best,
Grace

To Whom It May Concern:

I'll keep it short: if we don't reinvent our economy, we're all in big trouble. Renewable energy is part of that reinvention. It's clear.

Please rework the strategic energy plan for New Hampshire to include more renewables.

Jake Lewis

We can create jobs with renewable energy the way we have with fossil fuel energy, and stop polluting the air, the land and the water.

Dick

New Hampshire needs more wind and solar energy that will create more jobs. Neal Ferris

I am writing you as a resident of New Hampshire in regards to the rewriting of the strategic energy plan for New Hampshire. I urge you to strongly support renewable energy sources and the jobs it will create, as you look to the future for New Hampshire. This strategy is a win-win policy as it not only will create a stronger economy, but a healthier, safer future for all who live here (as well as in the world!). New Hampshire can be a wonderful leader and example of how to address current problems that are negatively affecting people all over by embracing the future with a positive, renewable energy strategy. Thank you for your time and willingness to listen to the constituents in New Hampshire.

Sincerely,
Virginia (Ginger) Riege- Blackman
Chichester, NH

Dear Colleagues:

I fervently believe that New Hampshire needs renewable energy and the jobs that come along with this commitment.

We are in a crisis with climate change, and I believe that NH needs to do its part in combatting this catastrophe. Thank you for your attention.

Cheers,

Daniel

Hi - I have recently moved to Dublin NH from Massachusetts where my husband and I raised our 2 daughters and I enjoyed a successful career in the technology sector. I love my new state. I value the conservation land in the Monadnock Region and our smaller scale cities and towns, and I care deeply about region's future and I want to see New Hampshire invest in that future.

I'd like Governor Sununu and his administration to understand that New Hampshire needs clean energy and an economy built on renewable energy like solar and wind, not fossil fuels that pollute our region and the world.

I'd like to see NH become more energy efficient to reduce pollution and lower energy costs. I believe we should prioritize electric vehicles so that we don't fall behind on exciting advances in transportation technology or lose tourism dollars.

The recent increase in hurricanes and wildfires in our hemisphere just adds to the scientific evidence that climate change is a threat to life everywhere.

We must act now, with urgency, to invest in a clean energy future. I don't want to see my new state fall behind.

Thank you for listening.

- Nancy P. McIntyre

Dublin NH 03444

Dear Office of Strategic Initiatives,

Thank you for the opportunity to provide input on New Hampshire's energy strategy. The 2014 strategy was good, however, since then there have been at least three very important developments that have a major impact on Section 5 "Fuel Diversity". These developments are:

1. More research and evidence has become available that fossil fuels, including natural gas, play a major role in climate change. Natural gas is Methane. While methane might *burn* cleaner than other fossil fuels, methane *leaks* are 84% more potent in terms of global warming, than carbon dioxide. We must take this information into account in our revised strategy.

<https://www.edf.org/methane-other-important-greenhouse-gas>

2. The price of solar panels has come way down, making it a more reasonable alternative price-wise, to fossil fuels. We must take this information into account in our revised strategy.

a. <https://www.greentechmedia.com/articles/read/solar-costs-are-hitting-jaw-dropping-lows-in-every-region-of-the-world#gs.0sbn3cA>

b. <https://www.fastcompany.com/3067737/prices-for-solar-panels-keep-falling-so-why-isnt-it-cheaper-to-get-solar>

c. <http://news.energysage.com/how-much-does-the-average-solar-panel-installation-cost-in-the-u-s/>

3. The USA installed its first off-shore wind farm, off the coast of Block Island, RI, and demonstrated that offshore wind is feasible, both technically and economically. We must take this information into account in our revised strategy.

a. <https://www.nytimes.com/2016/12/14/science/wind-power-block-island.html>

b. <http://www.businessinsider.com/ge-wind-farm-block-island-2017-5>

c. <http://dwwind.com/project/block-island-wind-farm/>

Based on these three developments, I respectfully suggest the following revisions:

- Section 5.1
 - *Remove all mention of natural gas or methane gas as a renewable energy source*
 - *Revise the goal **from** "25% of electricity sold to retail electric customers must be generated by renewable energy sources by 2025" to "100% of electricity sold to retail electric customers must be generated by renewable energy sources by 2050"*

- Section 5.4.4 Natural Gas
 - Please revise this section entirely to clearly state that the strategy is to REMOVE our dependence from this fuel source completely by 2050 or a similar date.

- Recommended fuel diversity strategies
 - Under recommendation 12 about encouraging small installations, include a recommendation for encouraging small scale hydro.

 - Under recommendation 13, please remove converting customers to Natural gas as a goal, and remove any monitoring or encouragement of trucked CNG.

 - Add a recommendation to request an offshore wind task force from the Bureau of Ocean Energy Management to bring offshore wind to New Hampshire

Our state motto of “Live Free or Die” is pertinent in this strategy. We should aim to live free of dependence on other energy sources such as oil or gas from other states, and free from dependence on big hydro from Canada.

Thank you for your time and attention.

Mary Beth Raven

Merrimack, NH 03054

NH resident and registered voter since 1989

I would like to offer this public comment on the Revision of the State Energy Strategy per RSA 4:E-1:

My name is Ruth M Heath and I live at 49 Wyven Rd in Canterbury NH. My phone is 603-783-4401. I have been a resident in the state sine 1977.

My input begins not with a suggestion for an addition to the strategy but with a suggestion that we address the issue raised under the "Fuel Diversity and Choice" section. The Energy Strategy plan suggests strengthening and stabilizing the RPS. This clearly is needed; without it we are losing investments in alternative energy to our neighboring states who have more robust RPS. As a homeowner who has invested in solar, the low REC value in NH is disheartening and offers no encouragement to new investment in alternative energy sources. These alternatives are a key way in which we can decrease our dependence on fossil fuels and the fluctuating costs of them. Encouraging investment by businesses and homeowners in alternative energy is the only lasting way to be resilient in the face of unstable energy markets.

Secondly, I would ask that we NOT further encourage investment in building natural gas infrastructure (for example, pipelines). Although a cheaper (at this point) and cleaner alternative to coal, is largely produced by fracking, which is not environmentally friendly and would not be financially attractive if its true health and environmental costs had to be paid as part of its market cost. Unfortunately this is not figured into the price today, so it appears attractive.

Lastly, I applaud our participation in RGGI. And I suggest that even more bold initiatives be undertaken that put fees on carbon. We find ourselves in the untenable position of using fuels that harm our health, our planet, and our economy because their cost does not reflect the underlying costs. Carbon fees at the local and state and national levels would correct this problem and let the market allow the truly economical choices rise up. I hope that the revision will reflect this.

Thank you,

Ruth M Heath

To Governor Sununu and his administration,

I understand you are considering regressive revisions to the 10-Year State Energy Strategy. I urge you all to govern in a way that promotes a clean energy future. A clean energy future is one that is; built on renewable energy like solar and wind, not dirty fossil fuels, aggressively uses energy efficiency to reduce pollution and lower energy costs, prioritizes electric vehicles so that NH doesn't fall behind on the transportation revolution or lose tourism dollars and puts the state on a trajectory to address climate change RIGHT now, not later.

Governor Sununu has long criticized the existing State Energy Strategy, which calls for – among other things – strong state energy efficiency programs, expanded mass transit, and more electric vehicles. As a resident, business owner and parent I demand that any new State Energy Strategy include ambitious climate and energy goals.

With the Trump administration announcing its intent to exit the Paris Climate Accord, while propping up dirty coal and dismantling the Clean Power Plan, action at the state level is more important than ever. So far, Governor Sununu has declined to join other states in leading on climate change, and has expressed strong support for dirty natural gas including a potential new pipeline through the state. At the same time, however, he has agreed to improve the Regional Greenhouse Gas Initiative, has not halted key measures of progress in areas like energy efficiency, and has declined to veto important legislation to expand solar power. It's critical that the Governor hear from citizens like myself that know that the future of our states economic success depends on us being forward thinking and that means an Energy Strategy that prioritizes climate goals and clean energy.

New Hampshire MUST lead on clean energy. It would be an unconscionable mistake for the Sununu administration to go backwards instead of forwards.

Sarah Brown,
Owner, Sarah Mae Brown Consulting LLC
Founder, Green Alliance

OSI Staff,

I want to live in State that is part of the energy solution, not the problem. New Hampshire's current energy strategy is failing its citizens and is unsustainable, with one of the highest electrical rates in the country, not to mention the environmental impacts of relying on fossil fuels (including coal!). New Hampshire needs to plan for the future of providing renewable energy for all citizens while creating thousands of jobs in the process, THIS IS THE FUTURE!

As a mother, I am concerned about the changing climate and the fact that we are not doing enough for our children and grandchildren. We need to do more including:

- Require Governor Sununu to request an offshore wind task force from the Bureau of Ocean Energy Management. This is the first step in bringing offshore wind to NH.
- Make sure that New Hampshire joins the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.
- Insist that New Hampshire halts any investment or construction of new fossil fuel infrastructure.

Thank you for listening,

--

Karen Fitzgerald
Francestown, NH 0043

Dear Governor Sununu,

I am one of many New Hampshire citizens who has read and experienced what we call Global Warming. There is no bigger threat to our lives. Many of us are here *because* we believe NH to be a healthy place to live. We are willing to make sacrifices to allow our earth to breathe. So we can breathe too.

Please hear those of us who do not want more fossil fuel alternatives, we want CLEAN fuel. Our sun, or wind --
Please!

Sara R. Timmons
Greenfield, NH 03047

I am a resident of Peterborough, NH, and am co-founder of the grassroots clean energy advocacy group called Mothers Out Front- Monadnock. You will meet a number of members of this organization in Dublin tomorrow. We moms and grandmothers are actively building a powerful grassroots movement across the USA to ensure a swift, complete and just transition away from fossil fuels. We advocate for policies and regulations that will promote New Hampshire's transition to clean, renewable and local energy, and will be a constant voice for the adaptation of these resources and legislative actions to create a healthy climate and a livable future for all children. For a start, I urge Governor Sununu and all elected officials across this state to join the New England For Paris Climate Agreement. New Hampshire is just one of two New England states that has not signed on to meet the greenhouse gas limits set by the Paris Climate Accord, and to my knowledge, only four NH towns and cities have joined communities across the nation in support of the agreement. We need NH to be a leader in the clean energy and energy efficiency movement and economy. Self-sufficiency and energy independence are hallmarks of the New Hampshire mindset – a long-held, non partisan, and cherished tradition that will result in creating a pathway not only to reducing carbon emissions but promoting jobs and long-term cost savings. We urge Governor Sununu and all state and local elected officials to act with foresight and with our children's future in mind.

Sharon Malt

Peterborough, NH 03458

Co-Founder, Mothers Out Front Monadnock

Trustee, Conservation Law Foundation

Dear Office of Strategic Initiatives Staff,

Thank you for organizing hearings on New Hampshire's 10 Year Energy Strategy.

Please consider adding a more centralized location in the Monadnock Region. I certainly recommend Peterborough. In the general area both Manchester and Nashua should also have meetings.

I would like to make these observations:

1. NH should be taking greater advantage of recent advances in solar energy production and the jobs created by solar and other green energies. These are sustainable long term, and do not rely on dwindling supplies of fossil fuel products that are more and more difficult and environmentally damaging to obtain.
2. The Vermont countryside and rooftops are now dotted with solar fields and arrays. Every single one of them is producing clean, non-polluting power and will continue to do so with minimal expense for at least 2 decades. Some of this tremendous solar development is because Vermont wisely offered rebates and incentives. New Hampshire certainly could do the same.
3. To continue to develop and support natural (fracked) gas expansion/pipelines is counter-productive to the State's overall economic growth and sustainable energy development. The future is green. Don't settle for anything else.
4. The proposed Northern Pass project is a potential blight on our landscapes, and is not needed with a properly developed green energy infrastructure.

Sincerely,

John "Chris" Balch
Wilton, NH 03086

Dear Office of Strategic Initiatives,

Thank you for the opportunity to provide comments on the 2014 New Hampshire State Energy Strategy. I am pleased that we have this opportunity to make a course correction to revise our trajectory and aim for 100% Renewable Electricity generation by 2030 and 100% Renewable Energy for all sectors by 2050.

I'm very gratified to see that important recommendations described in the energy strategy are being implemented. The number one recommendation was to open a docket at the Public Utilities Commission on Grid Modernization. I had the opportunity of participating in the working group of IR 15-296 which produced the stakeholder report on March 20, 2017. <https://www.puc.nh.gov/Electric/IR15-296/NH%20Grid%20Mod%20Final%20Report%203-20-2017.pdf>

The second recommendation was to educate the public on the importance of a smarter grid. This recommendation was incorporated into the Grid Modernization Working Group process and report.

Another major accomplishment and the third recommendation in the energy strategy is the establishment of an Energy Efficiency Resource Standard (EERS) which is scheduled to take effect in January of 2018.

In Appendix C of the energy strategy, we see that the economic potential for energy efficiency measures could reduce our electric energy usage by approximately 20% across all three customer classes. Unfortunately, the market potential is only half that amount, "For each resource, the difference between the market potential and economic potential can be attributed to the limitations of policies, regulations, market inefficiency, and consumer awareness. For example, New Hampshire has not implemented all of the cost-effective energy efficiency measures that are available for a variety of reasons related to regulatory barriers, consumer education, and lack of access to financing." Page C-3 <https://www.nh.gov/osi/energy/programs/documents/energy-strategy-appendicies-a-c.pdf>

The advantage of replacing dirty and retiring fossil fuel plants with energy efficiency measures is that it not only makes the problem of reducing our dependence on fossil fuels smaller, it also provides immediate and direct economic benefit to electric ratepayers of every customer class.

Some elements of the other recommendations have been addressed in the Net Metering Docket, but far more needs to be done to provide consumers with access to financing and to address utility disincentives to support energy efficiency (decoupling) and distributed generation/demand response.

Despite the good news on these major initiatives, we have also seen an alarming increase in the expansion of fracked gas service to NH communities as recommended in Section 5.4 of the energy strategy.

Recommendation #8 is to increase the State's lead by example efforts. This has been very disappointing. In 2017, the State Legislature voted to shutter Concord Steam and convert

almost all the state buildings on the Concord campus to fracked gas. The shutdown occurred without a credible analysis of the cost/benefit of this decision. The numbers used to justify the shutdown of a co-generation facility came from the gas utility and relied on an apples to orange comparison of fuel costs versus delivered steam.

In the years leading up to the development of the State Energy Strategy, many energy specialists and some environmentalists saw methane gas as the “bridge fuel” to a renewable energy future. Recommendations for hooking up municipalities and businesses to gas distribution still appear in the Energy Chapters of several town master plans.

Unfortunately, we now know that methane isn’t so much a bridge as a gangplank. In recent years we’ve learned that methane is many times more potent than carbon dioxide when it comes to warming the atmosphere and oceans over the short term.

<http://www.onegreenplanet.org/animalsandnature/methane-vs-carbon-dioxide-a-greenhouse-gas-showdown/>

We’ve also discovered that estimates of the amount of methane leaking into the atmosphere during production, transportation and distribution have been grossly underestimated.

<http://yearsoflivingdangerously.com/story/chasing-methane/>

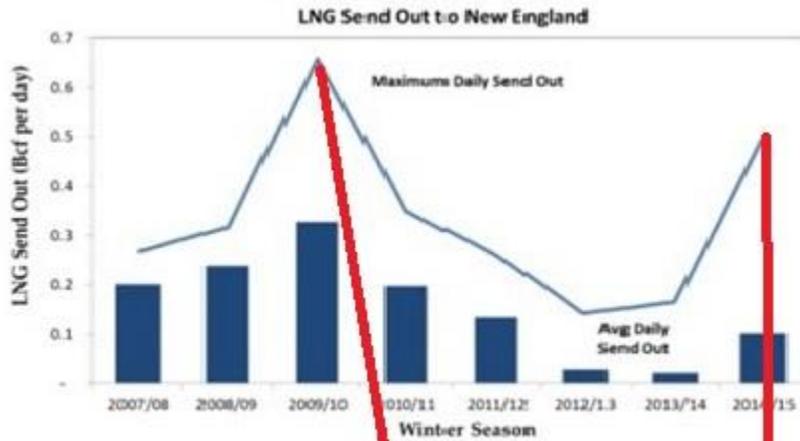
In light of this new evidence, we need to revise the language in Section 5.4.4 to clearly state that our goal is to eliminate our dependence on fracked gas and other fossil fuels.

In Chapter 2 of the energy strategy, page 7, “During the winter of 2013-2014, constraints in both the deliverable (oil and propane) and regulated (natural gas) fuel sectors caused price spikes that resulted in significant cost increases for consumer and businesses. These events are a reminder of the state’s vulnerability to national and world events that impact both the supply and the price of energy, and reminders of the need to focus on reducing our vulnerability.”

Thanks to a study by the Carsey School of Public Policy, we now know that our technical pipeline capacity in New England is almost double the economic capacity. Rather than building more pipelines and fracked gas infrastructure, we should commission an operations research study of pipeline flows to optimize delivery. There may also be regulatory remedies that would encourage pipeline operators to cooperate with one another to “keep the lights on.”

<http://scholars.unh.edu/cgi/viewcontent.cgi?article=1296&context=carsey>

We also recently received news that Eversource and Avangrid may have “hoarded” natural gas capacity during the peak winter months of 2013-2014. This exacerbated another problem created by ISO-NE when it failed to contract LNG for the Winter Reliability Program 2013-2014. Please see the impact of LNG contracting versus wholesale electricity prices in the graphic below.



Source: Energyzxt analysis, Ventyx Energy Velocity Suite

New England's average wholesale rates since 2003 (per megawatt hour) are shown here in inflation-adjusted dollars:



SOURCE: NEW ENGLAND POWER GENERATORS ASSOCIATION

UNION LEADER

When LNG contracting was restored to the Winter Reliability Program in 2015, wholesale electricity prices fell dramatically.

Recommended fuel diversity strategies

Under recommendation 12, encouraging small installations, include a recommendation to encourage small scale hydro.

Under recommendation 13, please remove converting customers to Natural gas as a goal, and remove any monitoring or encouragement of trucked CNG.

Add a recommendation requesting an offshore wind task force from the Bureau of Ocean Energy Management to bring offshore wind to New Hampshire

The Renewable Energy Fund was created to support the development of innovative renewable energy sources through grants and subsidies. The source of the funding should be Alternative Compliance Payments (ACP) which may be made in lieu of purchasing Renewable Energy Credits (RECs) when REC prices are high or insufficient renewable sources are available for REC purchasing.

In my opinion, the ACP system has been abused. Payments into the Renewable Energy Fund peaked at \$19 million in 2011. Today, the payments into the fund are approximately \$4 million. This is in large part due to the number of times that the PUC has agreed to absolve/reduce the utilities of their RPS obligations as shown in red in the chart below.

New Hampshire RPS Obligations⁹

Calendar Year	Total Requirement	Class I	Thermal Class I	Class II	Class III	Class IV
2008	4.00%	0.00%	0.00%	0.00%	3.50%	0.50%
2009	6.00%	0.50%	0.00%	0.00%	4.50%	1.00%
2010	7.54%	1.00%	0.00%	0.04%	5.50%	1.00%
2011	9.58%	2.00%	0.00%	0.08%	6.50%	1.00%
2012	5.55%	3.00%	0.00%	0.15%	1.40%	1.00%
2013	5.80%	3.80%	0.00%	0.20%	0.50%	1.30%
2014	7.20%	5.00%	0.40%	0.30%	0.50%	1.40%
2015	8.30%	6.00%	0.60%	0.30%	0.50%	1.50%
2016	9.20%	6.90%	1.30%	0.30%	0.50%	1.50%
2017	17.60%	7.80%	1.40%	0.30%	8.00%	1.50%
2018	18.50%	8.70%	1.50%	0.30%	8.00%	1.50%
2019	19.40%	9.60%	1.60%	0.30%	8.00%	1.50%
2020	20.30%	10.50%	1.70%	0.30%	8.00%	1.50%
2021	21.20%	11.40%	1.80%	0.30%	8.00%	1.50%
2022	22.10%	12.30%	1.90%	0.30%	8.00%	1.50%
2023	23.00%	13.20%	2.00%	0.30%	8.00%	1.50%
2024	23.90%	14.10%	2.00%	0.30%	8.00%	1.50%
2025 and thereafter	24.80%	15.00%	2.00%	0.30%	8.00%	1.50%

Senate Bill 218 (SB 218), which was enacted in 2012, required electricity providers to purchase useful thermal RECs representative of 0.2 % of their delivered electricity or make a payment of \$25 per megawatt hour in ACPs to the REF. (RSA 362-F; 3 and RSA 362-F:10, II (a)) SB 218 also required the Commission to implement rules to "adopt procedures for the metering, verification, and reporting of useful thermal output."¹⁰

<https://www.puc.nh.gov/Sustainable%20Energy/RPS/NH%20RPS%20Retrospective%202007-2015%20Report%20-%20FINAL.pdf>

Although the 2017 bill, SB 129, has restored many of the RPS targets and increased others, the potential for the PUC to reduce these goals again at the request of the utilities is still very much a risk. If we have any hope of reaching 100% renewable energy sources for electricity by 2030, we must greatly increase our RPS obligations.

In summary, New Hampshire has made important progress towards the goals and recommendations in the 2014 10 Year NH State Energy Strategy, but it needs to be revised to remove any encouragement of investment in fossil fuel infrastructure and to pursue more aggressive goals leading to 100% renewable energy sources for our electric grid by 2030 and 100% renewable energy sources for thermal loads and transportation by 2050.

Thank you for considering my comments in the rewrite of the energy strategy.
Sincerely,
Patricia A Martin
Rindge, NH 03461

To the Office of Strategic Initiatives:

I want to add this testimony about New Hampshire's energy strategy to the testimony you receive in your public comment sessions.

Having read the executive summary of the 2014 State Energy Strategy, I have concluded that the energy plan put forth there is thoughtful and generally quite good. As I see it, though, it lacks the urgency we are now feeling about the need to stop using fossil fuels as rapidly as possible in order to mitigate climate change before we are overwhelmed by its effects.

There is something the OSI could add to the plan that would hasten all of the positive developments the plan proposes, and that is support for national legislation to place a fee on carbon. Let me explain

Fortunately, Citizens' Climate Lobby (CCL) has thought this through and has a practical proposal for the OSI to support. CCL is a national organization that studied all of the possible actions that could be taken to mitigate climate change and decided to work on the single most impactful solution. That solution is to pass national Carbon Fee and Dividend legislation. The Carbon Fee and Dividend proposal works like this:

1. A fee is placed on fossil fuels at the source (well, mine, port of entry). This fee starts at \$15 per ton of CO₂ equivalent emissions, and increases steadily each year by \$10.
2. 100% of the net fees are returned to American households on an equal basis. Under this plan about 2/3 of all households would break even or receive more in their dividend checks than they would pay in higher prices due to the fee, thereby protecting middle-class and lower-income households.
3. A border tariff adjustment is placed on goods imported from, or exported to, countries without an equivalent price on carbon. This adjustment would both discourage businesses from relocating to where they can emit more CO₂ and encourage other nations to adopt an equivalent price on carbon.

A predictably increasing carbon price will send a clear market signal which will unleash entrepreneurs and investors in the new clean-energy economy.

The 2014 Energy Plan recognizes that all fossil fuels used in New Hampshire have to be imported from other states or countries, effectively sending all of the profits out of state. Putting a rising price on those fossil fuels would give local renewable sources an advantage over fossil fuels, and the rapid development of renewable energy would keep the profits within the state. The dividend would stimulate our New Hampshire economy, and the reduction of pollution from fossil fuels would improve our health. For further details on Carbon Fee and Dividend, see the links listed below.

Our New Hampshire Members of Congress look to New Hampshire agencies for support when they vote on national issues. If the Office of Strategic Initiatives clearly declared its support for

Carbon Fee and Dividend legislation, our Members of Congress would enthusiastically support that legislation when it is introduced by Republicans. Passing Carbon Fee and Dividend would enable the OSI to implement many aspects of the 2014 Energy Plan much more rapidly.

Anne Huberman

Secretary of the Monadnock Chapter of Citizens' Climate Lobby

Dear Sir/Ma'am,

New Hampshire must halt any investment or construction of new fossil fuel infrastructure. The cost to benefit ratio does not favor the state only the fossil fuel industry; however, even that is a short-term gain. Our state would be left with an unused, toxic infrastructure to dismantle.

Governor Sununu needs to request an offshore wind task force from the Bureau of Ocean Energy Management. This is the first step in bringing offshore wind to NH.

Support the solar industry.

Even though our coastline is small, explore the use of wave energy.

Using wind, wave, and solar energy means sustainable jobs for New Hampshire. In addition, clean energy does not cause health care problems.

New Hampshire must join the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.

Thank you for considering my remarks.

Sincerely,

Mary Ashcliffe
Henniker, NH 03242

It is my understanding that revisions to the New Hampshire 10-Year State Energy Strategy are under consideration. I would like to take this opportunity to encourage State government to take every opportunity available to reduce consumption of fossil fuels and emissions of greenhouse gasses. The energy strategy should include opportunities for these reductions in both the public and private sectors and should include:

- New initiatives for State government to install wind and solar power generating facilities for public sector facilities
- Initiatives to reduce all energy consumption by State government; energy conservation in State owned buildings and the use of electric and/or hybrid vehicles in the State motor pool
- Shutdown of fossil fuel powered generating stations within the State (the coal-fired Bow power plant in particular)
- Enhanced incentives for the private sector, both commercial and residential, to install wind and solar generating facilities
- Enhanced incentives for the private sector, both commercial and residential, to switch to electric and hybrid vehicles for fleet and personal use
- Enhanced incentives for the private sector, both commercial and residential, to invest in energy conservation improvements
- Educate the public on the benefits of making investments in clean energy and energy conservation, both in financial terms and and the long-term ramifications of continued global warming

The long-term ramifications of continued discharge of greenhouse gasses at current levels are clear. Continuing on our current path will be disastrous to both our economy and the health and well-being of future generations. Any revisions to the 10-Year State Energy Strategy need to aggressively pursue substantial reductions in the use of fossil fuels with the well-being of future generations as the ultimate goal.

Thank you in advance for your consideration of my comments.

Sincerely,

Donald Schagen
Newport, NH 03773

Dear Friends:

Please include in the next iteration of New Hampshire's Energy Plan that fossil fuel investments be halted, that the Governor institute an Offshore Wind Task Force to explore the feasibility of offshore wind energy on New Hampshire's coast and that New Hampshire join other states in committing to a goal of 100% energy from renewables by the year 2050.

Thank you for your attention to this matter!

Best wishes,
Sönke Dornblut
Newmarket, NH 03857

To whom this may concern:

Request that:

New Hampshire halts any investment or construction of new fossil fuel infrastructure. Fossil fuel is short-term at best. The financial benefits are to the fossil fuel companies only. Our state would be left to manage/deconstruct the pipeline infrastructure at taxpayer cost.

Governor Sununu requests an offshore wind task force from the Bureau of Ocean Energy Management. This is the first step in bringing offshore wind to NH.

Supporting solar and exploring wave energy generation too.

This means jobs and decreased health issues.

New Hampshire needs to join the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.

Thank you.

Lewis H. Ashcliffe

Henniker, NH

Hello,

I am writing as a voting citizen in New Hampshire.

I grew up in the state as did my father, my grandfather and his father.

This email is a request that you protect what is most valuable in our state, that being the natural landscape which makes up a large part of our economy through tourism.

Please:

- Halt investment in and construction of new fossil fuel infrastructure.
- Invest in clean energy alternatives. This can start with Gov. Sununu requesting an offshore wind task force from the Bureau of Ocean Energy Management.
- Commit to upholding the Paris Climate Accord!

Please.

Keep my vote and the votes of my friends and family.

Thanks!

Caleb Colpitts

He/Him/His

Visual Arts Educator

The Cambridge School of Weston

Dear Office of Strategic Initiatives,

As New Hampshire creates a new energy plan, it's essential that we make smart decisions as a state. Supporting and investing in renewal energy technologies will help the environment, the economy, and the people of NH.

I urge you to include in the plan:

- Halting investment in or construction of new fossil fuel infrastructure.
- Exploring the feasibility of offshore wind as an energy source, by requesting an offshore wind task force from the Bureau of Ocean Energy Management.
- Committing NH to uphold the Paris Climate Accord by reaching 100% renewable energy by 2050.

If any state can achieve ambitious goals for renewal energy production, it's NH. We have the grit and intelligence needed to make real change in our energy infrastructure a reality.

Thank you.
Grace Mattern

My name is Kimberly Kirkland. I am a resident of Concord. I am writing to encourage you to include the following when you re-work the strategic energy plan for NH.



New Hampshire halt any investment or construction of new fossil fuel infrastructure.



⇒A Governor Sununu request an offshore wind task force from the Bureau of Ocean Energy Management. This is the first step in bringing offshore wind to NH.



★New Hampshire join the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.

Thank you for listening.

Kimberly

I live in Maine, and I'd like to see our entire region work together to increase our renewable energy options. I think it's the best thing we can do for our economy.

PLEASE:

1. Halt any investment or construction of new fossil fuel infrastructure.
2. Ask Governor Sununu request an offshore wind task force from the Bureau of Ocean Energy Management.
3. Join the states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.

I'm watching the news and I shop in New Hampshire. You know I do. I only live 15 minutes from you and North Conway is my shopping place.

Thank you,
Barbara Ives
Cornish, Maine

To: Office of Strategic Initiatives
Re: State's 10 Year Energy Strategy

I appreciate then opportunity to submit written testimony on the the State's 10 Year Energy Strategy. As New Hampshire develops a plan to address our state's energy needs, it is imperative every effort is made to reduce our reliance on fossil fuels and to promote the use of renewable energy sources.

The State's 10 Year Strategic Energy Strategy should include:

- 1) An emphasis on clean renewable energy sources - solar, hydro, wind, tidal, and geothermal
- 2) An end to all investments in energy from fossil fuels and a halt to any new construction of fossil fuel infrastructure
- 3) A commitment to have New Hampshire join other states in upholding the Paris Climate Accord by adopting green energy sources and reducing climate change emissions from fossil fuels, with a goal of achieving 100% reliance on renewable energy by 2050.

Thank you for your consideration,

Susan Covert
Contoocook, NH 03229

Greetings,

I write as a parent and grandparent, and a longtime resident of NH who appreciates being warm in winter, and many lily cool in summer. More than my own comfort, I appreciate the natural beauty of NH including its lakes and mountains. I appreciate clean water to drink and a local, healthy food supply. I think an energy plan is more than about the type of fuel that we rely on. It is about the quality of life that we must protect and grow.

I urge that any energy plan be one that is future oriented for the benefit of the next generation and the ones after that! Renewable energy is available now. New technologies are on the horizon for NH. We need to invest in the future and not continue our reliance on fossil fuels.

Please be leaders in developing a plan that is future oriented.

Do not continue on the path of harm to our health and environment. We can do better.

Sincerely,

Lucy Crichton

Concord, NH

Dear Office of Strategic Planning;

Please know that I believe passionately that it is essential to include in the **State's 10 Year Energy Strategy** clear plan to include:

1) An **emphasis on clean renewable energy sources** - solar, wind, tidal, and geothermal: moving us into the 21st century to put us closer to sustainability;

2) An **end to all investment in energy from fossil fuels** and a **halt to construction of any new fossil fuel infrastructure**; we must not continue to ruin and consume our earth's fragile resources and destroy our climate, let alone our own health and well-being, as we use fossil fuels, at great cost to all.

3) **A commitment to have NH join other states in upholding the Paris Climate Accord** with a goal of achieving 100% reliance on renewable energy by 2050. I would be so proud of NH if we join forces with other states and Countries(!!) for a chance of making a significant difference in world balance.

Thank you for your consideration. As a native and life-long resident of NH, I know we can be leaders and partners at the highest level.

Sincerely,

Joan Holcombe

Enfield, NH 03748

Dear Sir or Madam,

I write to express my opinion about NH Energy Strategy.

I ask that the Governor designate an offshore wind generation review board, and a solar generation review board.

I ask that NH halts any investment or construction of new fossil fuel infrastructure, including Northern Pass.

And I ask that NH does the right thing and joins the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.

Respectfully,
Cynthia Capodestria
Sanbornton, NH

I believe that NH's 10 Year Energy Strategy should include:

- 1) An emphasis on clean renewable energy sources - solar, wind, tidal, and geothermal
- 2) An end to all investment in energy from fossil fuels and a halt to construction of any new fossil fuel infrastructure
- 3) A commitment to have NH join other states in upholding the Paris Climate Accord with a goal of achieving 100% reliance on renewable energy by 2050.

Not doing so would be criminal in my opinion.

Thank you.

--

Stella Walling
Rindge, NH

As New Hampshire reworks its strategic energy plan strongly request that:

NH halt any investment or construction of new fossil fuel infrastructure.

Gov. Sununu request an offshore wind task force from the Bureau of Ocean Energy Management. This is the first step in bringing offshore wind to NH.

New Hampshire join the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.

Thank you,

Esther Shartar-Howe

Sanbornton, NH

Dear Sir or Madam,

>

> I write to express my opinion about NH Energy Strategy.

>

> I ask that the Governor designate an offshore wind generation review board, and a solar generation review board.

>

> I ask that NH halts any investment or construction of new fossil fuel infrastructure.

>

> And I ask that NH does the right thing and joins the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.

>

> Respectfully,

> Cynthia Capodestria

> Sanbornton, NH

>

Dear Office of Strategic Initiatives,

I am writing to you about the 10-year New Hampshire Energy Plan. I would like to encourage you to fight climate change and promote renewables in every way that you can in your plan. Please understand that climate, the environment, sustainability and a transition to renewable energy need to be at the center of New Hampshire's energy plan. Renewable energy sources not only provide the opportunity to create thousands of new clean energy jobs in NH, but they will help the planet remain habitable for our grandchildren.

Please also make sure that the 10-year New Hampshire Energy Plan includes the following items:

- New Hampshire halts any investment or construction of new fossil fuel infrastructure.
- Governor Sununu requests an offshore wind task force from the Bureau of Ocean Energy Management. This is the first step in bringing offshore wind to NH.
- New Hampshire joins the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.

Thank you for your serious consideration regarding this important matter.

Sincerely,

Mel Hinebauch
Concord, NH 03301

I am a resident of New London, NH.

I am requesting that the 10 yr plan emphasize clean, renewable energy and a commitment to join other states supporting the Paris Climate Accord, achieving renewable energy 100% by 2050.

Disinvest in fossil fuel energy and halt construction to any fossil fuel infrastructure.

Thank you for making NH a leader. Joy Kubit

Dear Office of Strategic Initiatives,

I am a New Hampshire citizen extremely concerned about our use of energy and the future of our state and our planet.

I am writing to you regarding the 10-year New Hampshire Energy Plan. I encourage you to fight climate change and promote renewables in every way that you can in your plan. Please understand that climate, the environment, sustainability and a transition to renewable energy need to be at the center of New Hampshire's energy plan. Renewable energy sources not only provide the opportunity to create thousands of new clean energy jobs in NH, but they will help the planet remain habitable for our grandchildren.

Please also make sure that the 10-year New Hampshire Energy Plan includes the following items:

- New Hampshire halts any investment or construction of new fossil fuel infrastructure.
- Governor Sununu requests an offshore wind task force from the Bureau of Ocean Energy Management. This is the first step in bringing offshore wind to NH.
- New Hampshire joins the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050. (I have written to the Governor to ask him to step up and join the Paris Climate Accord.)

Thank you for your serious consideration regarding this important matter.

Sincerely,

Brigid McNamee
Concord, NH

Dear Office of Strategic Initiatives,

With regard to the 10-year New Hampshire Energy Plan, I write in order to ask you to fight climate change by promoting renewables in every way possible when you develop the new energy plan.

I feel extremely strongly that climate, the environment, sustainability and a transition to renewable energy must be at the center of New Hampshire's energy plan. Renewable energy sources not only provide the opportunity to create thousands of new clean energy jobs in NH, but they will help the planet remain habitable for our grandchildren.

In addition, please make sure that the 10-year New Hampshire Energy Plan includes:

- A halt to any investment or construction of new fossil fuel infrastructure in NH and by NH.

- A request by Governor Sunun to create an offshore wind task force (perhaps a request to the Bureau of Ocean Energy Management) to look into bringing offshore wind to NH. To do that well, we need facts.

- New Hampshire joining the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.

Thank you for your hard work serving the people of NH and for your serious consideration in this important matter.

Sincerely yours,
Claudia C. Damon
Concord, NH 03301

1. We have a coastline - let's explore wind.
2. Vastly expand the quota for solar panels. Make it easy for every city and every school to invest in solar.
3. No fracking, no pipelines, no coal fired anything.
4. Put NH into the Paris agreement.

Thanks,

Cheryl Bourassa
Concord, NH 03301

I request that the State's 10 Year Energy Strategy include:

- 1) An emphasis on clean renewable energy sources - solar, wind, tidal, and geothermal
- 2) An end to all investment in energy from fossil fuels and a halt to construction of any new fossil fuel infrastructure
- 3) A commitment to have NH join other states in upholding the Paris Climate Accord with a goal of achieving 100% reliance on renewable energy by 2050

Thank you-

Stephen Lowe
Spofford, NH

Let's bring jobs to NH that will help to keep our air clean, our maple trees healthy, and our ski mountains snowy in winter.

Renewable energy is the way to go.

Governor Sununu should get cracking on creating an offshore wind task force from the BOEM.

We should commit as a state to uphold the Paris Climate Accord.

We should stop investing in new construction aimed at utilizing fossil fuels.

Nancy Pape
Madbury, NH 03823

Hello

I am writing to comment on this plan. I hope that the goal of an energy plan in NH is to become entirely free of fossil fuels, and to rely only on solar, wind, tide and geothermal energy. This is possible, although ambitious.

I do not think our state should be investing any money in any infra-structure that uses fossil fuels for energy. Any projects for which we are spending tax payer dollars that involve fossil fuel use should be stopped immediately.

Finally NH should assert, as many other states have, that we have a commitment to join other states in upholding the Paris Climate Accord with a goal of achieving 100% reliance on renewable energy by 2050.

I personally have committed my household to these goals, installing geothermal heat, a solar tracker that generates 12,500 kW hrs of electricity per year, and I drive an all electric car.

NH can be a leader - let's make a sustainable 10 year plan.

--

Thank you,
~Linda Rhodes
Durham, NH, 03824

To the New Hampshire Office of Strategic Initiatives,

Please include the following comments in your consideration of potential updates to the State's 10 Year Energy Strategy.

Thank you,
John Gage
12 Fordway Extension
Windham, NH 03087
03087

Strategy For A
Low Energy Cost, High Economic Growth
Future For New Hampshire

*Based on Global Greenhouse Gas Emissions Reduction Commitments
and Growing Support to Price Carbon Emissions Nationally*

<http://CCLNHSouthCentral.org/ccl-nh-energy-strategy>
John Gage - October 17, 2017

Summary

We continue to vote for fossil fuel options with our wallets, despite the costly problems we know their use and dependence cause. Efforts are underway to fix this market failure at the federal level with a revenue neutral carbon tax. It is growing increasingly likely that Congress will act, because every country in the world but one (Syria) has committed to aggressively reducing greenhouse gas emissions from fossil fuels. The resulting enormous clean energy market opportunity means addressing our energy market failure is a strategic imperative. When Congress does act, states that have prepared for the change will be best positioned to prosper from it.

New Hampshire has a lot to gain from a federal revenue neutral carbon pricing policy. State leaders can make decisions that will further increase our advantage by using proxy carbon pricing in current policy analysis, investing in and making energy efficiency a priority, and promoting smart-grid and electric transportation infrastructure. Our state can help accelerate the national schedule by endorsing a policy like Carbon Fee and Dividend as some municipalities in New Hampshire and some other states have already done, and by joining the US Climate Alliance to signal our commitment and responsibility to move to clean energy.

New investments in fossil fuel infrastructure are increasingly likely to become stranded costs due to events out of our state's control. Rather than place bets on a fossil fuel-oriented future, our state should

promote businesses that provide clean energy solutions here at home and can be sold into the rapidly growing global clean energy market. New Hampshire's combination of a strong manufacturing base, technically skilled workforce, and proximity to higher education put us in a position of great advantage if we align the state with the energy trends that are beyond our control. We should bet our state's future in the same direction that every other country, and every major reputable scientific organization from around the world, have taken on energy.

Based on the science, the world must make the switch to clean energy for our children's future, as well as that of the rest of life on Earth. Based on the business opportunity, our state should be a leader in this switch, to be able to benefit from the economic opportunities the global switch to clean energy presents.

Outline

1. Energy Market Failure
2. Global Energy Trends and Market Opportunities
3. National and States' Energy Trends
4. National Carbon Pricing Options, Support, Results, and Benefits
5. A New Hampshire Strategy

Energy Market Failure

The economic theory

- **Market Failure** occurs when there is an inefficient allocation of resources in a free market. Market failure can occur due to a variety of reasons, such as monopoly (higher prices and less output), negative externalities (over-consumed) and public goods (usually not provided in a free market) - [link](#)
- **Negative Externalities** occur when the consumption or production of a good causes a harmful effect to a third party - [link](#)

"Climate change is the greatest market failure the world has ever seen." ~ Nicholas Stern, author of [The Stern Review](#), lead economist and adviser to Prime Minister Tony Blair and a former chief economist of the World Bank, estimated that the costs of climate change, if not addressed, will be equivalent to losing 5 percent (and potentially as much as 20 percent) of the global gross domestic product (GDP) "each year, now and forever." Hundreds of millions of people could be threatened with hunger, water shortages, and severe economic deprivation - [link](#)

External costs of using fossil fuels

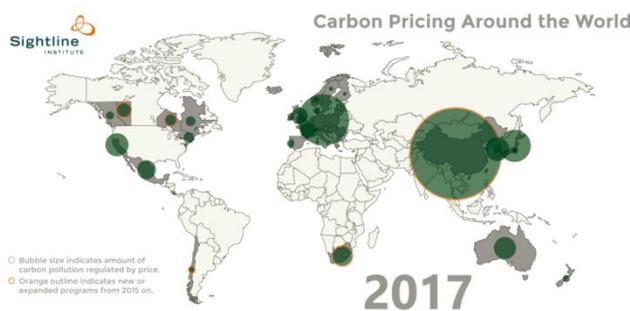
- IMF: \$5 trillion in annual external costs of fossil fuel use globally - [WSJ link](#) & [IMF report link](#)
- World Economic Forum - 2016 Global Risks Report - [summary link](#) & [report link](#)
 - Identified the failure of climate change mitigation and adaptation as the #1 most impactful threat to business in the next decade
 - Climate change will exacerbate water crises, impacting conflicts and forced migrations
 - Food security risks will increase due to climate change

- US Taxes: e.g. \$30 billion per year spent on Middle East military bases & shipping to "protect our oil interests" - [link](#)
- US Subsidies: \$6 billion in annual direct tax subsidies (oil depletion allowance, federal land lease deals, etc.)
- 10,000 US deaths, and over one hundred of billion of dollars per year in health care costs and lost productivity from fossil fuel pollution - [link](#)
- [Property rights losses](#); [energy price instability](#); [national security threat multiplier](#)
- Trillions in current and future costs associated with global warming, climate change, sea level rise, and ocean acidification - [link](#)
 - E.g. Disaster relief and lost economic potential (e.g. added strength and rainfall in 2017 Hurricanes Harvey, Irma, and Maria = \$300 billion) - [link](#)
 - Previous estimate of cost of fossil fuel emissions in US: \$36/Ton CO₂e - [link](#) & [link](#)

Global Trends

Growing world commitment to address global warming from fossil fuel greenhouse gas emissions

- Scientific consensus that global warming is caused by humans, mainly from fossil fuel emissions - [NASA](#), [200 international scientific organizations](#)
- Paris Climate Accord 2016 - 196 countries have committed to greatly reducing their greenhouse gas emissions
 - Only two countries did not join: Nicaragua had declined because the Accord did not go far enough, but has since joined. Syria is a failed state, and is now **the only country in the world** not in the Accord. The US has stated our intention to drop out but can not for three years (recently this intention has started to waver). No other country has stated such intention.
- Slideshow - 1990 to present - countries that have put a price on carbon emissions (in 2017 these countries make up 25% of the global economy) - [link](#)



- Globally, carbon pricing initiatives will play an increasing role, with about 100 Parties - accounting for 58 percent of global GHG emissions - planning or considering these instruments. - [link](#)
- France and UK - no new fossil fuel powered cars may be sold starting in 2040 - [link](#)
- UK - reduced greenhouse gas emissions by 40 percent since 1990 while growing the economy by over 60%
- European Commission road map - cut greenhouse gas emissions: 40% by 2030, 60% by 2040, and 80% by 2050 (below 1990 levels) - [link](#)

International Commerce & Trade Policy Changes

- CORSIA - global aviation fuel market-based carbon pricing - [link](#)

China

- 2017 - Planned construction of 100 new coal plants canceled - [link](#)
- 2017 - Will invest \$361 billion in clean energy over the next three years - [link](#)
- 2017 - National auto cap and trade policy planned as part of goal to eliminate fossil fuel powered cars - [link](#)
- 2019 - National carbon emissions trading system will cover 25% of industrial emissions - [link](#)

Global Market Opportunity

Energy is 8% of global GDP. Who will meet the world's enormous clean energy demand?

China

- Centrally directed economy
- Focused on producing clean energy solutions
- Making significant investments
- Putting a price on carbon this year

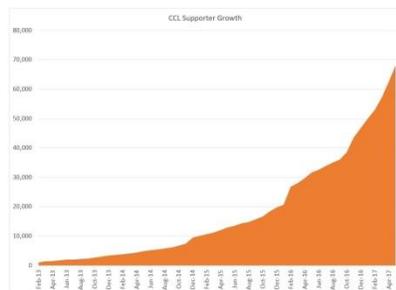
United States

- Direct subsidies: fossil fuel industry \$6 billion/year, clean energy \$1.3 billion/year
- Hundreds of billions of dollars/year of external costs from the use of fossil fuels
- Energy market failure is causing misinformed consumer preferences, and short-sighted business investments
- Free market forces are not operating efficiently, which is reducing our potential and therefore our chances for success

National Trends

Momentum is Building to Correct the Energy Market Failure

- Citizens' Climate Lobby - 10 year old grassroots organization, endorsed by James Hansen, George Shultz, etc. - [link](#)
 - A national policy solution: Carbon Fee and Dividend - [link](#), ([two minute video link](#))
 - James Hansen's TED Talk - [video link](#)
 - CCL: Making Friends and Influencing Congress - [link](#)
 - CCL volunteer membership growth from 1000 to 82,000 in four years - [link](#)



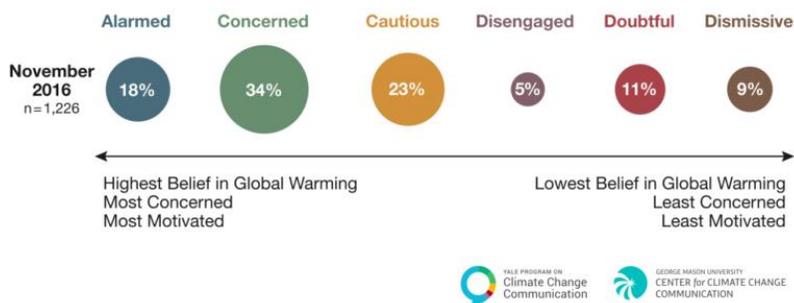
- Climate Leadership Council - new in 2017, endorsed by Ted Halstead, Hank Paulson, James Baker, Laurence Summers, etc. - [link](#)
 - The Conservative Case for Carbon Dividends - [link](#)
 - Ted Halstead's carbon pricing TED Talk - [video link](#)
- State actions (e.g. California: Carbon Fee and Dividend endorsement, Cap & Trade bill passed) - [link](#)
- FERC 2017 Technical Conference - pricing carbon emissions is the one thing all attendees could agree on - [link](#)
- NESCOE and ISO-NE - do not support carbon pricing (beyond RGGI) at state level, but acknowledge carbon pricing is the efficient solution - [link](#)
- Rex Tillerson - the fundamental business logic of carbon pricing - [video link](#)
- ExxonMobil - on the benefits of using a revenue neutral carbon fee (like Carbon Fee and Dividend or Carbon Dividends) to address the issue - [link](#)

Bipartisan House Climate Solutions Caucus

- Started in 2016, now with 60 members of Congress - 50% Republicans & 50% Democrats - [link](#)
- Cracking Washington's Gridlock to Save the Planet - [link](#)

Growing Awareness of the Urgency of the Problem

- Funding for Pentagon study of climate change impacts on national defense (46 Rs voted with Ds) - [link](#) & [link](#)
- Yale Climate Communications - 75% of Americans are Alarmed, Concerned, or Cautious about human-caused global warming - [link](#)



- Miami (\$400 million bond for pumps), Boston (potential sea wall will cost more than the big dig) - [link](#) & [link](#)
- General Motors switching to all electric vehicles - [link](#)

America's Paris Accord Back-out Reaction

- States are acting (12 in US Climate Alliance - representing 30% of US population, 40% of US GDP) - [link](#)
- Cities are acting (369 US Climate Mayors, Cities endorsing Carbon Fee and Dividend, e.g. Portsmouth City Council) - [link](#) & [link](#)

- Businesses are acting (efficiency measures, proxy carbon pricing)
- ⅔ of Americans want to stay in the Paris Agreement

Carbon Pricing

We can fix the broken energy market by "internalizing the negative externalities". In other words, add the external cost into the cost of production, so that it is reflected in the price of the product downstream, and consumers can make fully informed purchasing decisions. - [video link](#)

- Shi-Ling Hsu - The Case for a Carbon Tax (Precis) - [link](#)
- US Treasury - Methodology for Analyzing a Carbon Tax - [link](#)

Business support for carbon pricing

Reasons for Business Support

- Addresses risk
- Avoids regulation
- Predictable
- Simple, transparent, fair
- Allows each to compete effectively

What O&G Majors Like about Carbon Pricing

- Drive efficiency improvements
- Favor natural gas over coal
- Support carbon capture sequestration
- Enable an orderly and efficient transition

Business Support for a Revenue Neutral Carbon Fee

ExxonMobil, Shell, GM, Johnson & Johnson, Pepsi, P&G, Schlumberger, Unilever, Santander,

- Business Climate Leaders - [link](#)
- CLC Founding Members - [link](#)
- World Bank: Why Business Leaders Support Carbon Pricing- [link](#)

The Carbon Fee and Dividend Policy Proposal

A market-based, revenue neutral, federal legislative solution that is viable, beneficial, & global in effect - [link](#)

1. A fee based on greenhouse gas emissions is charged on fossil fuels when they enter the economy (at the source of production - well, mine, port of entry), starting at \$15/ton CO₂e and increasing \$10/ton each year
2. All the money collected (minus administration costs) is returned to American households monthly on an equal basis (1 share per adult, ½ share per child up to two children per household)
3. A border adjustment tariff is placed on goods imported from, or exported to, countries without an equivalent price on carbon

- CCL's methodology, growth and impact - [link](#)

Carbon Fee And Dividend Benefits

- The Regional Economic Modeling Incorporated (REMI) Report: National results in twenty years - [link](#)
 - Environment: 50% reduction of CO2 equivalent emissions
 - Economy: Add 2.8 million jobs (net) and \$1.375 trillion to GDP
 - Health: Prevent 230,000 deaths from air pollution from coal
- **Regional benefits** for New England: net gain in jobs, economy and real income - [link](#)
 - REMI regional report: **\$1000 gain in real personal income in 10 years, \$1600 in 20 years** - [link](#)
 - Local household impact report: **Benefits to low and middle income families** - [link](#)
- Direct the power of efficient free market forces at the problem
- Position US industry to compete in the 21st century global market
- Reduce associated land, air, and water pollution
- Protect citizens' property rights
- Reduce geopolitical tensions (ie. Middle East, Russia), improve national security
- Save hundreds of billions each year in US health care, FEMA, defense costs

NH Strategy

1. Reduce Future Energy Costs Relative to Other States and Countries
 - When a price is put on carbon emissions nationally, the states with relatively small carbon footprints will be more competitive
 - Prevent stranded costs (e.g. from new natural gas infrastructure)
 - Reduce state carbon footprint in preparation for national carbon pricing
 - Discourage new fossil fuel use (Avoid Concord Steam-type regressions)
 - Promote (preferably local) clean energy
 - Promote efficiency: to save money, create jobs, incubate products
 - Promote smart grid and storage technology development and use
2. Keep NH Energy Money In-state
 - Reduce spending on out of state resources (\$4.9 billion in 2014)
 - Buy less (NH is #21 in energy efficiency - far behind other NE states)
3. Plan For a Competitive Advantage
 - Use a proxy carbon price (some other states' PUCs are already doing it)
 - Businesses using Proxy Carbon Pricing - [link](#)
 - States using Proxy Carbon Pricing - [link](#)
 - Create a state ecosystem for clean energy, efficiency, and electricity infrastructure to incubate ideas, products, and businesses that can sell into the global clean energy market (smart grid, storage, etc) which will create jobs and attract a young, educated workforce
 - Encourage clean energy (infrastructure, use, products, and jobs)
 - Encourage energy efficiency (buildings, transportation, and jobs)
 - Job training - efficiency and clean energy deployment, manufacturing, etc.
 - Promote businesses that will meet needs of the global energy market
4. Prioritize Electric Infrastructure Investments
 - Transportation recharging stations
 - Prepare for smart grid deployment

- No New Natural Gas Infrastructure is Required
 - NH Carsey Perspectives Report - [link](#)
 - Down-scheduling and capacity withholding must be addressed - [link](#)
- 5. Help Enable the US to Prosper
 - Endorse national revenue-neutral carbon pricing to help build the political will to enable Congress to pass Carbon Fee and Dividend Legislation
 - Leaders Letter - [link](#)
 - Businesses, local governments endorsement - [link](#)

Handouts

1. Shi-Ling Hsu - [The case for a Carbon Tax](#)
2. US Treasury - [Method for Analyzing a Carbon Tax](#) (page 26: the best results are obtained by returning all the money back to households)
3. Climate Leadership Council - [The Conservative Case for Carbon Dividends](#)
4. Citizen's Climate Lobby (CCL) - [The Carbon Fee and Dividends Policy](#) (and the [CF&D Laser Talk](#) as page 2)
5. REMI Report - [National Economic and Environmental Report on the benefits of Carbon Fee and Dividend](#) over 20 years (Macro-economic Study)
6. REMI Report - [Regional \(New England\) benefits of Carbon Fee and Dividend](#) over 20 years (Macro-economic Study)
7. Household Impact Study - [National Impact of the first year of Carbon Fee and Dividend](#) (Micro-economic Study)
8. Household Impact Study - Regional Impact of the first year of Carbon Fee and Dividend - [NH District 1](#) & [NH District 2](#) (Micro-economic Study)
9. UNH Carsey Perspectives - [New Hampshire's Electricity Future: Cost, Reliability, and Risk](#)
10. Lead NASA Climate Scientist, [James Hanson Testifies to Congress in 1988 to Warn about Global Warming from Fossil Fuel Greenhouse Gas emissions](#)
11. Union of Concerned Scientists - [Exxon Knew in 1981 Global Warming From Fossil Fuel Greenhouse Gas Emissions Was a Serious Threat](#) - (pages 2-3)
12. [Some States are Using Shadow Carbon Pricing to Prepare for a National Policy](#) (aka Proxy Carbon Pricing)

Presentation Format

<http://bit.ly/CCL-NH-energy-strategy>

Across the nation, people in both red states and blue states are realizing that modernizing our cities and towns with 100% clean renewable energy will help create jobs and boost local economies. Cities like Aspen, CO, Greensburg, KS, and Burlington, VT, have already achieved 100% clean energy. And internationally, Vancouver, Paris, and Sydney are also going all-in on clean energy.

A recent economic study estimated that a transition to clean renewable energy will add 1 million jobs in the U.S. by 2030 and increase household disposable income by \$350-\$400 in 2030 and by as much as \$650 in 2050 (source: <http://nextgenamerica.org/blog/our-clean-energy-economy/>).

The renewable energy sector is booming. Wind and solar prices have rapidly declined in the past five years, and the solar industry is one of the fastest growing sectors of the US economy.

Poll after poll shows that a majority of Americans support renewable energy. In a recent national survey of U.S. adults paid for by the Sierra Club, a whopping 83 percent of respondents said they support a goal of 100% clean renewable energy.

With cities like Paris and San Diego leading the way, it's time for our state to step up to the plate. We too deserve clean air, good jobs, and strong leadership. We need you to lead us to 100% clean renewable energy and not force our state to go backwards with fossil fuels, pipelines and fracked gas.

We need our state and communities to go 100% clean renewable energy!

Sincerely,

Laura and Ken Lynch
Temple, NH 03084

As you consider the future of energy in NH, I ask that:

New Hampshire halts any investment or construction of new fossil fuel infrastructure.

Governor Sununu requests an offshore wind task force from the Bureau of Ocean Energy Management. This is the first step in bringing offshore wind to NH.

New Hampshire joins the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.

Thank you,

Maureen Redmond-Scura

Concord, NH

To whom it may concern,

I write to express my opinion about NH Energy Strategy.
I ask that the Governor designate an offshore wind generation review board, and a solar generation review board.

I ask that NH halts any investment or construction of new fossil fuel infrastructure.

And I ask that NH does the right thing and joins the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.

Sincerely,
Rebecca Colpitts
Monroe, NH 03771

Thanks for giving citizens of New Hampshire the chance to comment on possible revisions to the State Energy Strategy.

I've reviewed the current version of the State Energy Strategy. Although I'm not a technical expert, it seems to me that there are many laudable aspects to that strategy. In particular, the emphases on energy efficiency--in all its various aspect--is to be commended.

My comment is that it is important for any revision to the State Energy Strategy take into account the need to reduce carbon emissions. New Hampshire should do its part to avoid the worst consequences of climate change.

Please do not do any revisions to the State Energy Strategy that could result in more carbon emissions, and do your best to include features that will reduce future emissions beyond what can be expected from the current strategy.

I am aware that some people are worried that there is a conflict between encouragement of sustainable energy and continued economic growth of the New Hampshire economy. It would be untrue for me to claim that there are no possible downsides to anyone in the state regarding specific efforts to reduce carbon emissions. However: 1) the net effect of such efforts will help the overall NH economy more than hurt it; and 2) the negative impacts of climate change will be massively greater than any positive short-term benefits of inaction.

I'm making this comment on behalf of my grandchildren, who will have to live in whatever world we leave behind for them. Please do not ignore the needs of future generations when making today's plans.

Sincerely,

Michael Fleming

8 Woody Lane

Lee, NH 03861

I write to express my opinion about NH Energy Strategy.

I ask that the Governor designate an offshore wind generation review board, and a solar generation review board.

I ask that NH halts any investment or construction of new fossil fuel infrastructure.

And I ask that NH does the right thing and join the growing list of states who commit to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050.

Respectfully,
Frances M. Belcher
Campton, NH

Dear Office of Strategic Initiatives,

Thank you for offering the public an opportunity to send Comments regarding NH's New 10 Year State Energy Strategy.

And thank you for undertaking this effort to upgrade the 2014 State Energy Strategy. Within the short time since its writing, our environment and climate have been demonstrating the need for a new level of urgent attention to global warming and its repercussions. It is crucial for the New Strategy to be solidly grounded in the moral and practical imperatives of addressing head-on the true context of our present realities. It is not a time for the faint-hearted. We are at a precarious point for the heating up of our atmosphere and oceans. Wishing it away isn't working. Thinking that it is "out there", somewhere else in the US or the arctic, blinds us to the interconnectedness of our world and our nation's common resources – our food supply, sufficient federal funding for catastrophe relief and overall economic and social stability. Our inability to direct our focus to the reality of this challenge handicaps our ability to make appropriate decisions and invites consequences which imperil our state's economy and the wellbeing of our citizens.

Understanding that we are up against a limited degree of remaining time to exert any level of restraint over this process will be essential for responsibly choosing how to shape our course of action toward a future we want for our communities, our children and grandchildren.

Essential understandings to guide the New Strategy:

- **We are facing a long-term costly and destructive climate crisis.** It demands immediate actions to reduce and discontinue inflaming its process of overheating, largely from the burning of fossil fuels and intensely escalated by methane emissions from fracked gas. Undoubtedly, there will be extraordinary pressures from corporate lobbyists and fossil fuel-backed organizations, like the BIA, striving to hold their grip on the energy markets. It will take determination and clarity to not let the New Strategy get pulled off track or bogged down by distractions. Change isn't easy. So we **MUST** remain clear and doggedly dedicated to investing in a transformative transitionto power our buildings, appliances, equipment and transportation with renewable resources and to reduce our energy demand through earnest conservation. We also need to create mitigations and sustainable adaptations for our affected communities, from towns having "100 year floods" every few years, the 2016 draught that shut down NH dairy farms, events like the 2008 Ice Storm and 14 day power outage that PSNH called the most expensive storm in its history, to the towns along our gradually shrinking coastline.
- **We do not need more energy.** Not in NH and not for the NE grid. Not to supposedly lower electricity prices. And not as a "solution" for a proposed "fuel reliability" issue. Those claims are inaccurate. We already have fuel reliability. And NH's electricity bills are high due to our excessive transmission and distribution costs, largely the result of stranded infrastructure costs...not the price of our energy, which is actually close to average for the US. These findings and conclusions are spelled out in the Report from the Carsey School of Public Policy <http://scholars.unh.edu/cgi/viewcontent.cgi?article=1296&context=carsey> ; plus the Synapse report www.synapse-energy.com/.../New-Englands-Shrinking-Need-for-Natural-Gas-16-109; the CLF report from the Skipping Stone study www.clf.org/wp-content/.../Solving-New-Englands-Gas-Deliverability-Problem.pdf ; the recent report on Eversource and Avangrid adding to the illusion of pipeline insufficiency and "fuel unreliability" by over-reserving pipeline capacity, followed by cancelling portions of it too late for other companies to place orders for it, leaving unused available pipeline

capacity.

www.masslive.com/news/index.ssf/2017/10/mit_study_accuses_eversource_a.html ;

plus statements by the president of the NE Power Generators Association (NEPGA), Dan Dolan, refuting the existence of an “energy crisis” in 2014, saying, “wholesale energy prices plummeted by 40% by January, 2015, in spite of the retirement of 4 major power plants and without a single new pipeline.”; and **ISO-NE’s CEO, Gordon van Welie’s statement in his “State of the Grid: 2017” interview** , “**NE has enhanced reliability – Resource adequacy: New England has the resource base & transmission system needed to meet consumer demand for power**”.

[https://www.iso-ne.com/static-](https://www.iso-ne.com/static-assets/documents/2017/01/20170130_stateofgrid2017_presentation_pr.pdf)

[assets/documents/2017/01/20170130_stateofgrid2017_presentation_pr.pdf](https://www.iso-ne.com/static-assets/documents/2017/01/20170130_stateofgrid2017_presentation_pr.pdf)

. Additionally, if we were to have any unfilled need for energy, there is the 2015 10 yr. and extendable Distrigas LNG contract to cover any potential unfilled peak energy needs. **In other words, we are covered. There is no energy reliability issue for NE’s grid.**

Recommended goals for the New Strategy:

We need to focus on taking all possible steps to **attain 100% renewable electricity generation by 2030 and 100% renewable energy for all sectors by 2050 by:**

- 1) switching from fossil fuels to renewables as quickly as possible
- 2) reducing overall energy demand through energy efficiency and closing pipeline leaks
- 3) prioritizing cost-effectiveness
- 4) prioritizing energy diversity
- 5) prioritizing investments in and supporting NH’s economy--in-state businesses.

As participants in the NE grid:

- One clearly cost-effective recommendation **for reducing energy demand** would be to promote a requirement for all of the NE utilities **to close the leaks in their pipelines.** But not at ratepayers’ expense. Not only would it lower NE’s energy demand, it would prevent the continuation of all the releases of GHG emissions spewing out for years on end, stop the safety accidents, and lower ratepayer’s costs, since they are charged for what the utilities call “lost gas”. It would include the reported 75,000 gas leaks in MA, 20,000 in Boston alone, plus the thousands throughout NE.
<https://www.bostonglobe.com/metro/2015/08/20/new-law...gas-leaks/.../story.html> <http://www.wcvb.com/article/tens-of-thousands-of-gas-leaks-across-the-state/8246535> One nation-wide study found that in 11 years, US ratepayers paid \$20 billion for “lost gas”. NH has no available figures regarding leaks that I could find. But, In Keene, “Firefighters have plenty of experience dealing with gas leaks in the city”, according to a WMUR report on 5/2 2017. <http://www.wmur.com/article/crews-work-for-hours-to-repair-gas-leak-in-keene/9596940>. Underscoring their leaks and safety issues, as reported in 12/2015: “Firefighters responded to 104 calls related to the leaks, and at least four people have been taken to the hospital after experiencing symptoms of exposure to carbon monoxide. Two others went to the emergency room on their own.”
- Along with Grid Modernization, for the time being, **until NE’s grid includes sufficient renewable power** to assuredly cover all peak requirements, **the most efficient and cost-effective “bridge fuel” the grid managers should use is LNG to fill any winter peak extra needs.** Typically, they used LNG for those purposes. Strangely failing to do

so in the winter of 2014, at least in part, contributed to the supposed “energy crisis.” But, in May, 2015, as referred to above, Distrigas of MA contracted to provide any and all LNG needed for winter peaks for 10 yrs.--an extendable contract. Other LNG companies are also available for back-up supply. So there is no legitimate reason for unfilled demand. Therefore, there remains **no energy reliability issue or problem.**

<https://www.bostonglobe.com/business/2015/05/10/distrigas-inks-big-lng-deals/quafPIHwoFG4bhENhaERYK/story.html>

Some specific recommendations for reducing NH’s fossil fuel use and increasing investments in renewable energy and energy efficiency:

- Fully support and strengthen the Regional Greenhouse Gas Initiative (RGGI), the Renewable Energy Fund (REF) and Energy Efficiency Resource Standard (EERS)
- Increase commercial and residential incentives and rebates for energy efficiency retrofitting, and expand weatherization programs for low-income citizens.
- Increase incentives and rebates for all renewable energy systems and heat pumps, as well as purchases of high efficiency appliances, LED lights, electric cars, etc.;
- Prioritize cost-effectiveness, such as installations of solar power –“**The cost of solar has dropped 75% since 2007 to become the cheapest source of energy on earth**”.
file:///C:/Users/nades_000/Downloads/NH%20Cities%20and%20Towns%20-%20Clean%20Energy%20Transition.pdf
- Prioritize energy diversity – NE’s grid is already using 50% natural gas http://www.isone.com/aboutiso/fin/annl_reports/2000/2014_reo.pdf and the President and CEO of ISO-NE, Gordon van Welie, has stated, “**The energy problems confronting New England...largely stem from a growing regional dependency on natural gas.**”
www.sierraclub.org/sites/www.sierraclub.org/.../NHSC%20FERC%20Letter.pdf
- Discourage or, where possible, disallow state agencies, departments, the state legislature and the PUC from passing bills and issuing permits for any increase in fossil fuel usage or infrastructure’
- Increase public transportation and support for train service where feasible.
- Encourage and incentivize municipal energy audits and deep energy efficiency retrofits for all town buildings
- Increase educational efforts to encourage more behavioral energy conservation at homes, businesses and schools.
- Encourage municipalities to create more bicycle and walking paths, encourage bicycling, ride-sharing and discourage idling.
- Encourage towns to create Energy Chapters for their Master Plans with goals for 100% renewable electrical generation by 2030 and 100% renewable energy for all sectors by 2050, create local tax incentives for installing renewables, purchase recycled paper products, LEDs and other energy efficient products throughout all town buildings.
- Encourage a requirement for a short 1 or 2 day high school level unit on climate change/impact of GHG emissions, energy conservation and renewable energy, including a ½ day hands-on training in home weatherization and energy-saving steps

Thank you for taking my comments. I will look forward to an excellent New 10 Year Energy Strategy.

Beverly Edwards
Temple, NH 03084

I'm writing to encourage the adoption of clean energy policy in our state. I would like the construction of and investment into new fossil fuel to be stopped.

I also request that Governor Sununu asks for an offshore wind task force from the Bureau of Ocean Energy Management. Offshore wind can help meet our energy demands while reducing damage to our severely overstressed environment.

It is imperative that our state join other states who have committed to upholding the Paris Climate Accord by reaching 100% renewable energy by 2050. This will not be easy, but we cannot afford to do otherwise.

We are barreling down the road to climate catastrophe and we owe it to our children and all of life to confront reality and change our behavior.

Thank you,

Sheryl Anderson
Sanbornton, NH

Good afternoon,

My name is Jay McFarland and I own Hampton Ford Hyundai in North Hampton. I live in Rye where I grew up.

I also share ownership of McFarland Ford in Exeter. I am active with the Boards of the Portsmouth Music Hall, The New Hampshire Automobile Dealers and the New England Ford Dealers Advertising Board. I have run my own business for 35 years now in NH and recently installed a 97kWh solar array at a total cost of \$238,000 of my own money. Sadly the State of NH isn't providing any financial assistance although we have applied for state and federal grants. Either way I am more than happy to have installed the array as we cannot sit by while we wait for others to help us.

I would very much like to see a penny or two added to our gasoline tax and be directed toward solar and wind grants. I feel it is very important that NH take a leadership role. It will be good for business, for families, for our health and for the future. I do not take this position lightly as I make my living selling and servicing cars and trucks.

Transportation is something we all require- but not at the cost of our health and planet.

My home in at 1324 Ocean Blvd and I grew up on the very end of Concord Point in Rye. I know exactly what the ocean is doing by first hand account. The value of my land in Rye is going to start to drop and probably already has as people become more aware of the dangers of living near a higher and more dangerous ocean.

I am sorry to have not made it to your public sessions and should have, however, I am very happy you took the time to have them.

Please feel free to contact me if I can be of help.

Jay D. McFarland

Hampton Ford Hyundai

Please be sure that climate change and sustainability issues are clearly and boldly addressed:

- 1.) We need to emphasize clean renewable energy sources: they are the future.
- 2.) All investments in fossil-fuel based energy systems and infrastructure must cease.
- 3.) NH must join other progressive states in upholding the Paris Climate Accord with a goal of 100% reliance on renewable energy by 2050.

Do not allow our planet to be destroyed by a handful of amoral rich people.

--

From failure you learn, from success not so much.

John Zavgren

The state of New Hampshire should have a 10 year energy plan which:

- 1) An emphasis on clean renewable energy sources - solar, wind, tidal, and geothermal
- 2) An end to all investment in energy from fossil fuels and a halt to construction of any new fossil fuel infrastructure
- 3) A commitment to have NH join other states in upholding the Paris Climate Accord with a goal of achieving 100% reliance on renewable energy by 2050.

save wild places

Richard

We and our friend and neighbors in Wilton, NH, **demand that the State of New Hampshire move in the direction of energy independence and away from the use of fossil fuels of all kinds.** It is the only sensible and practical road to take, and will save us all money in the long run— as well as protecting the clean air and clean water that are our right, as citizens of New Hampshire.

We ask that the plan arrived at feature:

- 1) An emphasis on clean renewable energy sources - solar, wind, tidal, and geothermal
- 2) An end to all investment in energy from fossil fuels and a halt to construction of any new fossil fuel infrastructure
- 3) A commitment to have NH join other states in upholding the Paris Climate Accord with a goal of achieving 100% reliance on renewable energy by 2050.

Sincerely,

William Finlayson MD, and Dodie Finlayson, Wilton NH 03086

Dear Office of Strategic Initiatives Staff,

Thank you for organizing hearings on New Hampshire's 10 Year Energy Strategy.

Please consider adding a more centralized location in the Monadnock Region. I certainly recommend Peterborough. In the general area both Manchester and Nashua should also have meetings.

I would like to make these observations:

1. NH should be taking greater advantage of recent advances in solar energy production and the jobs created by solar and other green energies. These are sustainable long term, and do not rely on dwindling supplies of fossil fuel products that are more and more difficult and environmentally damaging to obtain.
2. The Vermont countryside and rooftops are now dotted with solar fields and arrays. Every single one of them is producing clean, non-polluting power and will continue to do so with minimal expense for at least 2 decades. Some of this tremendous solar development is because Vermont wisely offered rebates and incentives. Massachusetts also has a well developed solar program. New Hampshire certainly could do the same.
3. To continue to develop and support natural (fracked) gas expansion/pipelines is counter-productive to the State's overall economic growth and sustainable energy development. The future is green. Don't settle for anything else.
4. The proposed Northern Pass project is a potential blight on our landscapes, and is not needed with a properly developed green energy infrastructure.

Sincerely,
Glynn Graham
Wilton NH

Dear Office of Strategic Initiatives Staff,

Thank you for organizing hearings on New Hampshire's 10 Year Energy Strategy.

Please consider adding a more centralized location in the Monadnock Region. I certainly recommend Peterborough. In the general area both Manchester and Nashua should also have meetings.

I would like to make these observations:

1. NH should be taking greater advantage of recent advances in solar energy production and the jobs created by solar and other green energies. These are sustainable long term, and do not rely on dwindling supplies of fossil fuel products that are more and more difficult and environmentally damaging to obtain.
2. The Vermont countryside and rooftops are now dotted with solar fields and arrays. Every single one of them is producing clean, non-polluting power and will continue to do so with minimal expense for at least 2 decades. Some of this tremendous solar development is because Vermont wisely offered rebates and incentives. New Hampshire certainly could do the same.
3. To continue to develop and support natural (fracked) gas expansion/pipelines is counter-productive to the State's overall economic growth and sustainable energy development. The future is green. Don't settle for anything else.
4. The proposed Northern Pass project is a potential blight on our landscapes, and is not needed with a properly developed green energy infrastructure.

Sincerely,
Alice Groh
135 Temple Rd.

To Whom it may concern:

I attended the public comment session at Wolfeboro Town Hall at 1 pm on Thursday 19 October and made some comments, and I think you have recorded these.

There were only about 9 people there from the public, plus Joe Dorian, Alexis and Chris from your staff. Several of us spoke more than once.

We need an energy strategy based on the realities of climate change and modern technology. I have installed solar collectors and now pay nothing for electricity. This cost me \$30K, \$15K of which came back through rebate. The process was economically complex and exasperating. Many people would benefit from solar collectors but can't afford them. Solar collectors such as mine put energy back into the grid, which is good for all of us. I think that this is a worthy investment in the future.

The United States is lagging behind the rest of the world in renewable energy production and energy conservation, and we need bold action. We need to cut down on the extraction of fossil fuels and work toward 100% renewable sources while there is still time. The planet is getting warmer and warmer.

Dick Devens
Center Sandwich NH 03227

Dear Office of Strategic Initiatives Staff,

Thank you for organizing hearings on New Hampshire's 10 Year Energy Strategy.

1. NH should be taking greater advantage of recent advances in solar energy production and the jobs created by solar and other green energies.
2. Offer rebates and incentives for more solar fields and arrays which will encourage tremendous growth of solar and diminish any need for fossil fuel.
3. Do not support natural (fracked) gas expansion/pipelines as it is counter-productive to the State's overall economic growth and sustainable energy development.
4. The proposed Northern Pass project is a potential blight on our landscapes, and is not needed with a properly developed green energy infrastructure.

The future is green. Don't settle for anything else.

Sincerely,

Bridget Mooney
Wilton, NH 03086

The State's 10 Year Energy Strategy include:

1) An emphasis on clean renewable energy sources - solar, wind, tidal, and geothermal

1a) effective battery storage

2) An end to all investment in energy from fossil fuels and a halt to construction of any new fossil fuel infrastructure

3) A commitment to have NH join other states in upholding the Paris Climate Accord with a goal of achieving 100% reliance on renewable energy by 2050.

4) a way that when the power goes down, those with solar panels can still use the energy generated by those solar panels even though everource is off line.

Thank you

Erin Hubbard

Hollis, NH

Hi,

I'm writing as a constituent to ask that the following be made part of New Hampshire's 10 Year Energy Strategy:

- 1) An emphasis on clean renewable energy sources - solar, wind, tidal, and geothermal
- 2) An end to all investment in energy from fossil fuels and a halt to construction of any new fossil fuel infrastructure
- 3) A commitment to have NH join other states in upholding the Paris Climate Accord with a goal of achieving 100% reliance on renewable energy by 2050.

Please share with me any energy plans that currently exist, and let me know if you plan to improve them using the above suggestions. Thanks!

- Cathy Lanigan
28 Concord Street
Peterborough, NH 03458

i hereby request that the State's 10 Year Energy Strategy include:

- 1) An emphasis on clean renewable energy sources - solar, wind, tidal, and geothermal, with a provision for battery storage of energy generated.
- 2) An end to all investment in energy from fossil fuels and a halt to construction of any new fossil fuel infrastructure
- 3) A commitment to have NH join other states in upholding the Paris Climate Accord with a goal of achieving 100% reliance on renewable energy by 2050.

Sincerely,

Carol Kraus
Peterborough, NH 03458

To Whom It May Concern:

Please make clean renewable energy a centerpiece of the strategic energy plan.

NH should wisely and creatively invest in wind, solar, geothermal and tidal energy sources. Many jobs will develop from these.

Please discontinue any development of fossil fuel energy sources in NH which are killing our planet. Commit to the Paris Climate Accord--our best hope of saving our civilization and wildlife.

Thank you.

Sincerely,

Jane Williamson
No. Sutton, NH 03260

Oct 22, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Stephanie Husband
Litchfield, NH 03052-2439

Oct 22, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals. Climate change is a serious issue and one way to tackle it is through our energy policy.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Denise Vaillancourt
Concord, NH 03301-2927

Oct 22, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. randall kezar
Kingston, NH 03848-3222

Oct 22, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Elizabeth Hunt-Nickerson
Sanbornville, NH 03872-4392

Oct 22, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

I write as an 81 year old and long time NH resident to urge you to make limiting climate change as the number one priority in any Sate Energy Strategy - for the sake of my and your grandchildren.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Alexander Bernhard
East Andover, NH 03231-0198

Oct 22, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

Please - our future depends on it

Thank you
Kim
Pembroke NH

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Kim Carter
Pembroke, NH 03275-3311

Oct 21, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

Please help our beautiful state move away from fossil fuels and move toward more renewables!

Thank you for supporting progress.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Nancy Mahony
Nashua, NH 03062-1125

Oct 21, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Carol Renwick
Wilton, NH 03086-5914

Oct 21, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Fletcher Passow
Etna, NH 03750-4308

Oct 21, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

Innovation is key to job growth and a healthy environment. New Hampshire could take a leadership role in New England if our leaders are forward thinking.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Patience Chamberlin
New Castle, NH 03854-0117

Oct 21, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire has a wonderful opportunity to jump into the future by pushing ahead with developing clean energy. Our country is behind many countries in the world, and since our federal government isn't capable of leading for a healthy and economically viable future, states must take the lead. We are a small state but being the first in the nation, we have a big role.

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Deborah Bruss
Concord, NH 03301-2349

Oct 21, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

Also I believe the "Northern Pass" project is a bad idea. I believe it is not a "clean" project, and it takes unfair advantage of our state by sending power to states south of us.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. michael rossi
Plymouth, NH 03264-1420

Oct 21, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

My family and I have personally invested in clean energy by installing as many solar panels as possible on the roof of our home. In the process we have reduced our electric bill and help create new jobs in the industry.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Kent Hackmann
Andover, NH 03216-4161

Oct 21, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Roger Burkhart
Rochester, NH 03867-4627

Oct 21, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals. **WE NEED TO MOVE AWAY FROM FOSSIL FUELS!**

Thank you.

Dennis Chasteen

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Dr. N. Dennis Chasteen
Lee, NH 03861-6530

Oct 21, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Keith Wentworth
Merrimack, NH 03054-2200

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Christopher Whiteman
Weare, NH 03281-4203

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mrs. paula vanbuskirk
Seabrook, NH 03874-4180

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Charles Arnold
Manchester, NH 03105-1672

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

How is it that China is moving towards renewable energy and the United States is moving away from it? The United States has been considered more advanced than China in the past, but apparently China is becoming the leader now.

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Cathy Joly
Temple, NH 03084-4424

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Richard de Seve
Gilmanton, NH 03237-5012

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

I urge you to not let NH miss the jobs that are being created by solar and other renewable energy that both Vermont and Mass are benefitting from.

I urge you to work towards NH becoming energy independent. We can benefit from the sun and wind and not have to rely on mega fossil fuel companies. I have not needed to buy any energy a year and a half after installing solar panels on my house.

sincerely

Glynn Graham

608 Abbot Hill rd

Wilton

NH

03086

glynnjkm1@gmail.com

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mrs. glynn graham

Wilton, NH 03086-5913

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mrs. Carol Wyndham
Peterborough, NH 03458-1042

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

You know as well as I that New Hampshire needs a clean energy future. When you consider revisions to the State Energy Strategy, please prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. James Carley
Keene, NH 03431-5259

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Ellen Jahos
Alstead, NH 03602-0891

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Dr. Christine Kuhlman
North Sutton, NH 03260-0222

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

No amount of wishful thinking will prevent or mitigate climate change. We need to act now if our children are to inherit a livable world.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Carl Lehner
Holderness, NH 03245-0202

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mrs. Sheilagh Bergeron
Northfield, NH 03276-4629

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

I am deeply troubled by our country's trajectory regarding fossil fuel dependency and minimal attention to climate change. New Hampshire is such a strong state and I want to see our state become the example of how to create new jobs and a healthier planet by investing in solar energy, and other forms of clean and green energy that does not deplete, burden or poison our planet. I want future generations to live comfortably on a healthy planet, not a planet that is barren due to ignorance and arrogance about the current destructive power of climate change. Our country isn't the only country that has a new record of burning land due to climate. Think of all the jobs that can also be created via Research and Development for clean and green sustainable energy. We can become leaders in this industry and leaders in job creation. I want to see that happen.

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Laurie Anderson
Wilton, NH 03086-0883

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need energy independence with clean renewable energy we produce ourselves not on imported fossil carbon.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Michael Letendre
Portsmouth, NH 03801-4956

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Dr. David Ellis
Newmarket, NH 03857-1744

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Robert Humphrey
Warner, NH 03278-4306

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals. To do anything other than that is backward, foolish, and downright harmful to current residents and future generations. The future is green, clean energy, and if we aren't part of that movement, we are stuck in the past and we lose out in so many ways, including jobs, health, attracting new businesses, and protecting our air, water, and land resources.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Elizabeth Wisler
Atkinson, NH 03811-2206

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Jessica Arnold
Manchester, NH 03103-5751

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mrs. Janice Banks
Center Barnstead, NH 03225-3602

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Karen Day
Greenfield, NH 03047-4117

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Elizabeth Scadova
Nashua, NH 03060-6007

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Andrew Dunbar
Peterborough, NH 03458-2430

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Mike Speltz
Londonderry, NH 03053-3300

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Jeff Donald
Brentwood, NH 03833-6507

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals. There is no second nature!!!

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Mara Sabinson
Cornish, NH 03745-4705

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, clean transportation, energy efficiency, and achievable climate goals.

We need a state energy strategy that reduces pollution and greenhouse gases. Transportation is now the largest polluter in NH and has no state policy for emissions reduction. For transportation, we don't just need to support buying more electric cars, we need to support the implementation of a robust charging infrastructure so people will want to buy electric cars, and visit NH in their electric cars. We need state -level policies to support the implementation of a statewide charging infrastructure, even with public-private partnerships.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Randy Bryan
Concord, NH 03301-3021

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals. We don't need coal anymore! Go for SOLAR and WIND!

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Louise Rosand
Laconia, NH 03246-1307

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

It is time to tell the BIA and its fossil fuel ctors to look to the future. They need to think beyond the dividends of their stockholders and Bd. of Directors. They should care, as well, as should YOU, about the future our children and descendants will inherit! We MUST do everything we can, including providing financial incentives via legislation toward renewable energy. Fracked gas is a filthy fuel with a leaky, disruptive infrastructure. Please commit to clean energy and do everything possible to promote it. We need a state energy policy that promotes and encourages the use of clean energy!

The health of your children and mine and the quality of life they will experience depends upon how we act now. Don't sell them out for board room bucks and "same old, same old" policy; the 20th century is OVER!!

Please support the clean energy future we need!

Marilyn Learner
Hollis NH

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mrs. Marilyn Learner
Hollis, NH 03049-5944

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Laura Deming
Salisbury, NH 03268-5001

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Dr. Mary Ashcliffe
Henniker, NH 03242-7380

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Margaret Rice
Manchester, NH 03104-1513

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Michelle McKenney
Rochester, NH 03867-4568

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mrs. Christine Green
Bath, NH 03740-4100

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Dr. Dorothea Vecchiotti
Dublin, NH 03444-8606

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Evan Sederquest
Chester, NH 03036-4113

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Dr. Dr Wolfgang Sterrer
Colebrook, NH 03576-6118

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Patrice Zboya
Penacook, NH 03303-1702

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Kevin Schuster
Dover, NH 03820-8402

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Dale Hempen
Durham, NH 03824-4424

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

As a New Hampshire citizen, I believe that it is of the utmost importance for NH to have a clean energy future. It will benefit our environment, our children's health, and the economy. This is an opportunity for NH to become a leader in something important.

As you updates the State Energy Strategy, I ask you to please prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Molly O'Neil
Manchester, NH 03104-3910

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. George Wood
Nashua, NH 03062-1635

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

In an agricultural state with thriving natural resources, clean energy is increasingly important!

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Jill Swasey
Hampton Falls, NH 03844-2104

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

Help save the planet - promote solar and wind power. Show that republicans are not total stone age thinkers

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mrs. alexandra moffat
orford, NH 03777

Oct 23, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Kathleen Chapman
Mason, NH 03048-3905

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Denise Legault
Atkinson, NH 03811-2123

Oct 20, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Daniel Heyduk
Meredith, NH 03253-5305

Oct 23, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. Sheilagh Daly-Zeras
Concord, NH 03301-5012

October 18th, 2017

NH Office of Strategic Initiatives
107 Pleasant Street
Concord, NH 03301

Subject: 10 Year State Energy Strategy

Hello:

The NH USDA-Rural Development's overlying purpose is to promote the development of community services, housing and economic opportunity for NH.

The most expedient way to accomplish increased economic activity is to reduce costs for NH residents, municipalities and businesses. A 2nd, complimentary approach is to keep the dollars that are spent by NH businesses, municipalities and homeowners, in NH. Dollars saved or expensed to NH businesses turn over 3-4 times as they are expensed from one NH business to another NH business, resulting in a multiplier effect on NH's economy.

Sounds simple enough....and it is, especially today.

As NH does not have any fossil fuel natural resources or refining facilities NH has exported billions of NH dollars for fossil fuel purchases. For every \$1 spent on fossil fuel \$.80 leaves NH. In 2015 NH spent 3.1 billion on Petroleum, 561 million on Natural Gas and 43 million on coal.

Imagine NH's economic prosperity if we stopped the billions of dollars pouring out of NH? The good news is that NH has the natural resources, people and technology to do this.....today. And USDA-Rural Development has the low interest loans and grants to help businesses, municipalities and homeowners to do just that.

Some interesting statistics I have run across:

- NH has wind resources that could provide 5.7 gigawatts of electricity. In comparison, NH traditional source electricity production capacity is roughly 4.4 gigawatts.
- 30% of NH homes have roofs that face south. The sun delivers more energy to Earth in an hour than all of earth uses in a year from fossil, nuclear and renewable energy sources.
- Heat pumps powered by solar would cost \$1,023 per year to heat a 1200 foot square home. In comparison, to heat the same home would cost \$2,587 with natural gas, \$2,790 with oil and \$3,404 from propane.
- The comparative life cycle cost of a 60 watt equivalent LED light bulb that is on 4 hours per day is \$2, versus \$141 for a 60 watt incandescent light bulb, and \$17 for a fluorescent bulb. The payback period is 2 months.
- In 2016 1 in 50 new jobs in the US were in the solar industry. The median hourly wage for a US solar installer \$26.

- The City of Claremont, NH replaced 1,000 street lights with LED ones in 2016. They estimate they will save \$78,000/year. This is one city in NH. Imagine the impact on the NH economy if all the towns-cities in NH did the same?
- The Concord Center building in Concord, NH will save an estimated \$50,000 per year when they convert their 40 watt fluorescent fixtures to LED lights. This is one building....imagine the impact on the NH economy if all the buildings in NH did the same?
- My house produces more energy than it uses. The last 12 months my family and I heated and electrified our house and drove 41,000 electric car miles for \$2,508. Had we used all fossil fuels the comparative cost would have been \$9,357. Imagine the impact on the NH economy if all NH homes used solar and geothermal energy and drove electric cars?
- The wind farm in Groton, NH pays \$528,000 to the town, \$450,000 as a utility tax and \$275,000 to the Land owners. Imagine the impact on the NH economy if all towns had their own wind turbine or solar farm?
- Electric cars use 75% of their energy for movement compared to 25% for Internal-combustion engine cars. An electric car's equivalent miles per gallon is over 100 or the equivalent of \$.75 per gallon of gas. Imagine the impact on the NH economy if all NH vehicles were electric?
- Flow Battery technology has advanced to the point where there is a company offering a Power Purchase Agreement for 4 cents per KWH with the use of their battery and solar system.

The 10 Year State Energy Strategy:

It is clear that NH's 10 Year Energy Strategy should focus on the rapid transition of NH's energy sources from its current out of State-Country sources to NH's in-State sources (solar, wind, water, trees, air and earth).

The strategy should focus on the reduction of energy use through the use of modern equipment-technology. (LED lights, air and earth source heat pumps, electric cars)

The strategy should focus on grid resiliency by promoting town size micro-grids with accompanying battery storage and renewable electricity production.

If you have any questions or need additional information, please contact me at (603) 223-6051.

Sincerely,

Mark Koprowski
Community Programs Specialist

USDA End-of-Year Report Checklist

Financial Report

If you expended \$750,000 or more in Federal assistance per fiscal year, an annual audit under the Single Audit Act is required. A borrower is considered to have "expended" Federal financial assistance when: (a) Federal funds have been disbursed, either directly or as a

sub-recipient from a pass-thru entity; or (b) when the organization has incurred expenditures that will be reimbursed with Federal funds. All audits are to be performed in accordance with 2 CFR Part 200, as adopted by USDA through 2 CFR 400. These report must be provided to Rural Development 30 days after you receive it from your auditor and nine months after the end of your fiscal year, whichever is earlier.

If the above does not apply, a management report is to be submitted within 60 days from the end of your fiscal year. This report should consist of internally prepared reports that provide a Balance Sheet (Statement of Assets and Liabilities); a Statement of Revenue and Expenses (Profit and Loss); and a Cash Flow Statement (if available). A Town Report and/or Annual Report could meet this requirement if it contains the financial information listed above. Alternatively, if your organization has had an audit performed, please send the audit. If none of the above is available, complete and submit RD Form 442-2 and 442-3. Please contact this office if you have questions or require the forms.

- Proposed Budget for: (2017)**
- Change in Business or Financial Condition:** If your organization has had any significant change in the scope of business or services rendered, please provide a brief explanation about the change. Why was the change made? Additionally, note any current or anticipated market or industry trends that impact your organization and its ability to deliver services and/or repay obligations. If a significant one-time loss due to a natural disaster or casualty loss occurred, please note. Additionally, if your organization is experiencing financial challenges such as a notable downturn in revenue or increase in expenses, please provide an explanation and how the challenge is being addressed. Please also advise if your governing body is aware of the aforementioned changes and/or challenges and how the governing body was notified. Is the governing body actively participating in addressing the situation? If so, how?
- A list of names, phone numbers, addresses and email of the governing body and their terms of office.**

Evidence of insurance coverage, for the following if applicable:

- Property
 - Liability
 - Worker's Compensation
 - Malpractice
 - Business Auto
 - Fidelity Bond or Employee Dishonesty
 - Flood
 - Other
- Evidence of payment of real estate property taxes.**
 - What is your current Reserve Account Balance? \$_____ . Please provide proof of balance such as a bank statement.**
 - Name and Contact Information of Person Submitting Report on behalf of the organization.**

Name _____ Title: _____ Date: _____

Email _____ Phone: _____

I as a resident of NH, i would appreciate if the state of such natural beauty try to keep it that way by using a renewable energy plan.

Thanks

Ted Whelan

Bow NH

Oct 23, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals. I am an avid outdoorsman and want to have clean air and clean water. We just installed a large solar array in my town Brentwood with unanimous support at town meeting. Nothing has had unanimous support before. Let's get off fossil fuels so we can protect the environment for our enjoyment and our kids and grandkids.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Robert Wofchuck
Brentwood, NH 03833-6424

To the New Hampshire Office of Strategic Initiatives:

Please ...

Let the State's 10-year energy strategy emphasize clean, renewable power sources – solar, wind, geothermal, and tidal.

End all NH investment in energy that depends on fossil fuels, and stop building new fossil fuel infrastructure.

Let NH join other states in upholding the Paris Climate Accord, with a goal of 100% reliance on renewable energy by 2050.

I'll be 105 that year. I want my grandchildren and great-grandchildren to inherit a world in which it's safe to breathe.

Thank you!

Ann Lammers
Peterborough, NH

Oct 24, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals. While supporting a "Green" future may not be the easiest thing to do, it is the RIGHT thing to do. At many points in our lives, we are faced with difficult or distasteful choices, and we deal with the consequences of those choices for the remainder of our lives - and in this case, our choices now will affect the quality of the world that we leave for following generations. We MUST stand up to "big energy" and support renewables and energy efficiency programs. In particular, I support ending the cap on "net metering" so that residential solar will continue to be a vibrant source of additional renewable energy. Improved access to public recharging stations for electric vehicles will be necessary to continue to support the tourism industry, which is so important to our state's economy. Thank you for your efforts in these directions, and I encourage you in my strongest words to continue to strengthen New Hampshire's commitments to the goal of a sustainable world, and reducing the impact of global warming, which is already causing significant damage around the world!

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Richard Hough
Mason, NH 03048-4003

I'm Ken Grossman, a former state representative, having represented Barrington and served on the Science, Technology and Energy committee during the term when the 10-year Energy Strategy was authorized and written. It is a good document, and I'm gratified that it is still working document, especially as regards the clean energy sector.

New Hampshire is moving forward in reducing greenhouse gas emission, making remarkable progress in renewable sources of generation, solar alone being nothing short of spectacular. Coming on strong is the Energy Efficiency Resource Standard (EERS) developed with cooperation among the legislature, the PUC, the regulated utilities and other stakeholders.

It is disturbing nonetheless that in the face of inaction and negativity at the federal level there are forces that wish to dilute these efforts. It's important for both environmental and economic reasons to maintain forward progress. Actually, it's important to exceed existing goals and set new ones. More efficiency, more renewables sooner, not later. Twenty-five per cent by 2025 is good, but 50% by when? 100% by when?

The EERS stipulates using all energy efficiency measures that are cost-effective in the near term. That's good. But in reality, energy efficiency measures are always cost-effective. Sometimes the payback arc is a little longer. We should take the long view. Savings is good, but investment is even better. And if take into account the environmental and social costs the case for more not less action is even more compelling. According to ISO-New England, New England is using 12,000 gigawatt hours less each year due to energy efficiency and will double it by 2026. Let's get more of it.

The Carsey School of Public Policy's Perspective on NH's Energy Future needs to be made part of this discussion. Quick summary: NH doesn't need new fossil fuel pipelines or new high transmission lines. Efficiency and renewables, especially distributed generation, will bring down costs and the remove the need for new large scale non-renewable generation.

I want to mention two items that have not been in the forefront of energy strategy. One is the bipartisan initiative taking place nationally to consider a carbon fee and dividend. Look into it. It could be a game-changer. The other item is offshore wind generation. That's not in the existing energy strategy. It should be in the revised document. It's not a well-known technology, but it should be discussed. It has huge potential for bringing clean electrical generation that may supply electricity far beyond the projected need NH has. This needs to be checked out. A study commission looked into it several years ago and even though the summary was not as enthusiastic as it ought to have been, their work needs to be re-examined its entirety. It should not be dismissed out of hand.

Speaking of what gets dismissed, I want to shout "transportation" from the rooftops. I know that dealing with that issue hasn't gained traction politically. But our leaders sometimes have to lead. Look again at the transportation section of the strategy. It contains good ideas. Please don't ignore the need for the dollar savings cost and social cost savings over time. The 2014 strategy was based on data, not just public opinion. This is a moment for "if you build it, they will come." And there are data to support that.

Finally, I've got to whisper two words that sadly shut down some conversations about energy: The words are climate change. I can't help thinking that if we all faced the likelihood that climate change is a dire threat in so many ways, we'd be much more motivated to accelerate progress on sound strategy.

Ken Grossman
Barrington

Gentlemen:

The following is a comment on the State Energy Strategy.

I write as (1) a New Hampshire State Representative; as (2) the owner of a highly energy-efficient home designed by my wife and built by her and I together with professionals; as (3) a grandparent of two teenage citizens who (unlike you and I) need to live in the future, likely to 2100; as (4) a person who proposed, won approval for, and successfully managed an energy-efficiency project in Alstead's granite Shedd-Porter Memorial Library (which is on the NH and National Registers of Historic Places) achieving a 50% reduction in heating fuel consumption, and finally as (5) a concerned citizen privileged to be living in a democracy.

1. I believe the most important work we can do is in Energy Efficiency. Let me list some reasons:
 - It is the **cheapest form of electricity** – that is, once a demand reduction measure is put in place, and once the payback recovers the initial investment, it keeps delivering year after year, free.
 - It improves **comfort**: An early reaction, of an elder citizen, after the Shedd-Porter Library was insulated, exclaimed "I don't have to keep my coat on in here!". Now the basement hosts lectures and children's programs, and there are town-wide art shows in the main hall and twice-monthly social meetings aimed at getting our community more able to talk about serious issues. The beauty of the Library, now together with comfort, attracts residents and visitors alike.
 - Given this improved comfort, it **helps preserve historic buildings**, because utilization of a building is (said to be) the most important factor in its continued preservation.
 - It **saves the occupants money**, both in fossil fuel and in the electricity to drive the equipment.
 - **Aggregated**, the state-wide reduction in fuel expense will keep a truly significant amount of money from flying out of the state, never to be seen again, to buy fuel. **This increases the effective size of our economy.**
 - It creates a whole new industry, therefore **creates good jobs**. Energy efficiency – especially in building "conditioning" (heating and cooling) – is actually complex, as uninformed efforts can lead to serious problems with moisture (and thus mold) for example. But given guidance by competent energy auditors, the major work can be done by people with reasonable carpentry skills.
 - And **those jobs cannot be automated or sent overseas**. It's hand work, every case is unique.
2. **This does not mean that we can expect an overall reduction in demand for electric power** – because of the growing adoption of electric vehicles and of heat pumps. Mitsubishi already sells a home-size heat pump compressor that will handle outdoor temperatures of – 17 F.
3. I live in the country now, but **the lack of public transportation into southern NH must be a serious problem for young people, one that will keep them from staying in or choosing New Hampshire**. Young people don't want to have to buy a car every few years. In heavy traffic, driving is extremely stressful and exhausting. [Living in Somerville, MA in my 60s, I had a job teaching in Bedford, MA. I could drive, or I could walk a mile to a subway line, ride one stop, go up to ground level and wait for a bus, ride the bus maybe 25 minutes, and walk a quarter-mile to the school. Riding and walking I arrived full of energy and ready to work, having had time to think about the day ahead. Driving, I arrived tired and worried. So I walked and rode in the dead of winter.]

/s/ John Mann. Alstead, NH 03602

Oct 24, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

No area of government policy is as important as energy. The very lives of our children depend on the implementation of policies to protect the environment and provide for safe, secure energy.

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Stephen Spaulding
Hollis, NH 03049-6218

Oct 24, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

The future belongs to clean energy, to solar power, micro-grids and distributed energy generation. By investing in these, New Hampshire can be leader. Clean energy can be the "New Hampshire Advantage." This where new industries and new jobs await.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Mr. Howard Mansfield
Hancock, NH 03449-5504

Oct 24, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We beat back the NED pipeline, who'd planned to cross the Souhegan seven times (has there ever been a pipe that hasn't eventually leaked?) and planned to trample conservation lands (cheaper than buying out homeowners), while pumping stations had 'blowoffs' of methane and fracking chemicals. All this to get most of the gas to Dracut for eventual shipment overseas.

Towns are taking up the challenge, installing solar for their public buildings which should soon help lower town taxes. Meanwhile, there's a great co-op of volunteers in NH that help people install solar panels on their homes. Friends are very happy with their arrays, pleased with the savings and now buying electric cars.

Wouldn't it be great, with the national electric grid in jeopardy, if we had ramped up our efforts and had an alternative. haven't been able to get any answers concerning local stocks of transformers and other equipment that could be damaged in an attack.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. CHARLOTTE POGUE
Brookline, NH 03033-0535

As a constituent i have often wondered why New Hampshire lags so far behind all of our neighboring states on solar and other renewable sources of power generation.

For the last 15 years I've worked in the solar industry and resided in New Hampshire my whole life.

I know firsthand that we can do a lot more for nation and for state by investing in wind, hydroelectric and photovoltaic systems in New Hampshire.

Our state especially should be looking towards the clean power future. Every neighbor I know has problems with their drinking water caused by acid rain. This is strictly linked to one problem: Coal fired generation of electricity. We should be making policy is to protect the Hampshire from pollution. We should be supporting the growing industry have a new power. Our policies to date have been very weak on these issues.

We need to leadership and good governance to make nation and our state a better place to live at their place for future generations. I urge you to place the environment in its proper place has a key issue for policy and growth for New Hampshire.

Thor

To the Office of Strategic Initiatives

As a Peterborough, New Hampshire based mechanical contractor and biomass fuel manufacturer, Froling Energy is very much in favor of our state encouraging the expanded use of Biomass, especially when used in high efficiency boiler systems.

Biomass has both environmental and economic benefits for the state. This is a time of declining demand for low grade wood and our logging industry has been weakened as a result. Our forests remain forests (for the enjoyment of everyone) if they are able to provide income for their owners. Since an average of 70% or more of what comes out of a logging operation is low grade wood, if there is no market for it, potential logger income suffers and that difficulty trickles down to land owners, truckers, foresters, and even to operations that rely on the availability high grade lumber.

Wood pellets and wood chips are made of low grade wood. This is a source of energy that should be used more widely in modern commercial and residential boilers--especially in the rural and suburban areas where there is no access to natural gas.

In fact, NH sourced wood chips cost less to provide heat for a school or commercial building than what natural gas would cost--IF it is available.

Money spent on NH sourced biomass for heat energy stays in our state by about 95%.

Of Money spent on oil or propane less than 25% stays in NH.

This is a huge economic factor that needs to have priority in our state.

Since trees cover over 75% of our state, biomass is a lot like having oil wells here.

NH now supports biomass with the RPS and NHPUC Rebate and Grant programs. These programs should be maintained and strengthened to encourage the further use of biomass, especially in a time of low oil prices which we believe is temporary. All heat energy users should be encouraged to use our local biomass resource. They need to have confidence that their decision is a good one for their future and the future of the state.

A Written Testimony is attached. Please accept this as Froling Energy's submission for your consideration.

You will also find Project Reports on some significant NH biomass boiler projects that my company has done.

Thank you.

--

Jim Van Valkenburgh

Froling Energy

New Hampshire's Number One Biomass Installation and Service Company---Plus PDCs

www.FrolingEnergy.com

BIOMASS NEEDS TO PLAY A STRONG ROLE IN NEW HAMPSHIRE'S ENERGY FUTURE

Biomass needs to be included in New Hampshire's Energy Strategy as it has both economic and environmental benefits. Trees are our number one natural resource. With current boiler technology, they should be viewed as New Hampshire's oil wells—local producers of fuel where about 95% of all economic activity stays in our state. With good conservation practices and forest management our forests can be the best source of heat for many kinds of public and private buildings for perpetuity. Forests promote tourism and support all kinds of businesses in our rural areas, including loggers, truckers and foresters. Ironically, it has been shown that if our forest lands are not put to good use, the trees will be cut down and the land will be put to other uses—and we gradually lose our forests.

In the course of this testimony you will see that the NHPUC Biomass Rebate and Thermal REC programs have worked well in supporting the use of biomass for heat in commercial and residential buildings. These RPS supported programs have made positive impacts on both our state's energy users, land owners, loggers and our environment.

Biomass as a locally produced heating fuel has proved to be an economical option that has a history of very stable costs for decades. However, due to the current low cost of fuel oil and propane, the market cannot be considered stable. Businesses involved in biomass boiler installations, such as Froling Energy, have seen significant drops in sales of new boiler system installations due to low oil and propane prices. Buyers have lost motivation to make a fuel switch. Those involved in fuel production and delivery have also seen their sales flatten out with little new growth.

Continued support by the state through the NHPUC run biomass rebate and grant programs is necessary. Using these established and well run programs, a great deal more can be accomplished and should be encouraged.

REVIEW OF THE RPS FUNDED PROGRAMS:

Right from the start, by incentivizing companies, organizations and home owners to convert to biomass heat, the Biomass Rebates and RFP Grant programs which were funded by the RPS met with success:

- RPS incentive programs have fostered a new heating fuel diversity
- They emphasize the use of locally sourced renewable fuels which retain energy and investment dollars within our state, benefitting our state's economy.
- They have reduced the use of fossil fuels for thermal purposes by encouraging a switch to lower cost biomass fuels—stabilizing future energy costs for many.

- Expanded use of “modern wood heat” boilers has greatly reduced emissions by eliminating old wood stoves and wood fired boilers, improving air quality and public health.

There are NO Federal incentives for Biomass boiler systems. The NHPUC Biomass Boiler System Rebates and the NH RFP Grant program along with the ability to generate NH Thermal RECs-- are unique to New Hampshire.

VERY IMPORTANT NOTE: *Nearly all of our sales were in the parts of NH that have no access to natural gas. Biomass is the least cost heating fuel in the Rural areas of our state.*

When a building owner considers replacing failing old oil boilers, they mainly look at equipment replacement costs. Oil and propane boilers are much less costly to install than biomass boilers and are also the least complicated replacement for owners to conceive of. These are big impediments to biomass conversions which incentives help to overcome.

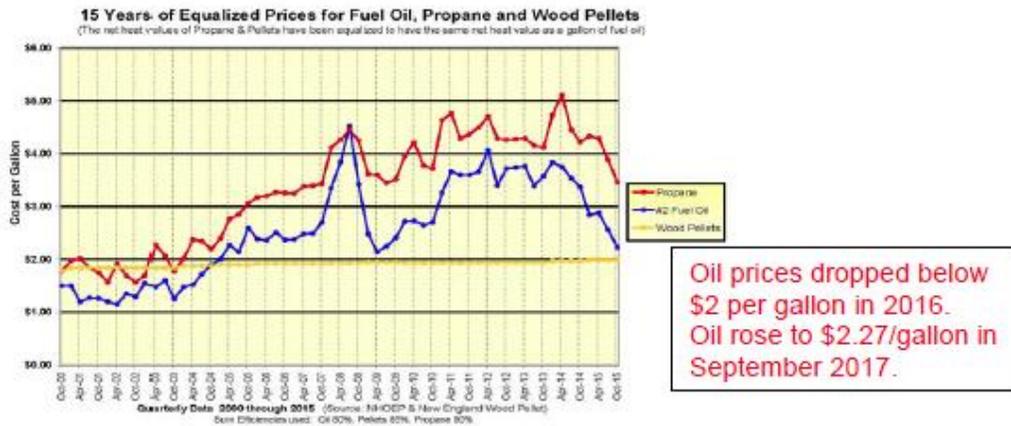
New Hampshire’s Commercial and Residential Biomass Rebates and RFP Grants have helped to overcome the larger initial cost and general resistance to the installation of biomass systems. The mere existence of the program gives biomass boiler systems credibility as a viable heating system option.

Smart building owners consider the future price of fuel with whatever boiler systems they are considering for heating their facilities. Often the main factor that influenced a decision to switch to biomass was the most recent price of oil and propane. High prices of oil drove sales of biomass boilers higher. However, once the price of oil and propane dropped below \$2.00 a gallon in late 2015, enthusiasm for biomass dropped off significantly. A couple of warmer than usual winters also made an impact. As a result, in recent years we have seen a significant drop off of demand for biomass systems.

Compared to fuel oil, biomass costs are STABLE. Conversion to a biomass fuel removes the price volatility that users of Oil and Propane have seen over the last 20 years. Even with what may seem like marginal savings today, in the long term view, biomass is less costly than oil or propane.

The following chart shows fuel prices over the last 15 years in terms of gallons of oil equivalent. Bulk delivered wood pellet prices are the flat yellow line (approx \$2 a gallon equivalent). Oil is blue and propane is red.

Fossil Fuel Price Volatility VS. Biomass Fuel Stability



Bulk wood pellets at \$240/ton have a net cost equivalent of \$1.99 a gallon.
 (After applying NH T-RECs pellets have a net cost of cost \$1.51/gallon)

Froling Energy's PDCs have a net cost equivalent of \$1.28 a gallon
 (After applying NH T-RECs PDCs have a net cost of \$.80/gallon)

The biomass heating industry that has been established here in New Hampshire is still in its infancy. We had some very good years between 2012 and 2015. However, today we find our companies weakened with slumping boiler system sales due to reluctant buyers. The rebate and grant programs are keeping some interest alive. When the price of oil rises to more normal levels (approx \$2.75 a gallon) we feel that strong interest will return.

3 BIG ADVANTAGES OF BIOMASS FOR OUR STATE:

#1 -- Biomass boiler systems support our state's number one natural resource: Trees.

A fundamental tenant of sustainable forestry is culling out the low grade wood to make way for new growth of more valuable trees. For the last few decades, forests in NH have faced a dwindling demand for low grade wood due to the demise of the paper industry. Use of this same low grade wood as a source of heating fuel has increased demand, although demand is still far below what it was years ago.

In the last decade, increasing popularity of wood pellets, semi-dry wood chips and green wood chips, has been good for those in the logging industry, for land owners and for the NH Economy. However demand for low grade wood is still far below what it was in prior decades. Loggers tell us that the market for low grade wood, is pretty bad right now. Many land owners have decided to not log their land because they can't make enough money to make it worthwhile. **Expanded use of biomass for heating fuel would help.**

#2 -- Money spent on NH sourced biomass is kept in New Hampshire! *BIOMASS fuel producers are NH's oil wells.*

The 3 NHPUC Biomass Rebate and RFP Grant programs have directly impacted the economy in many ways but the main factor is keeping heating dollars here in our local economy. This advantage is much more significant than most people are aware of.

Let's consider the 66 Biomass projects completed by Froling Energy that were assisted by the Rebates and RFP programs. With all of these systems operational in 2018 over 813,000 gallons of heating oil will not be imported into our state at a retail cost of over \$2.5 million (\$2.10 per gallon). The 66 projects will instead be burning \$1.4 million of wood pellets and PDCs—a *\$1.1 million savings spread among all 66 projects.*

The first 8 to 12 years of savings go to pay for the extra investment in each biomass boiler system, but after that these savings will decrease each organization's fuel budget. How much money stays in the local economy with Heating Oil vs Biomass? Since Biomass fuel is locally sourced 78% of money spent on it is estimated to staying locally while only 5% of Oil or LP stays local. **Our projects are having a positive impact:**

The Before and After Impact of Switching to Biomass:

Considering ALL Froling Energy projects incentivized by RPS Programs:

BEFORE: Oil/LP: \$2.4 Million fuel cost x 5% = \$376,000 stays in NH

AFTER: Biomass: \$1.4 Million fuel cost x 78% = \$1,335,000 stays in NH

> ***Our 66 projects keep nearly \$1 Million more in our local economy.***

#3 -- Money spent on Biomass Fuel in NH EMPLOYS PEOPLE.

Keeping Heating Dollars Local means that more New Hampshire citizens are directly employed, especially those in the many regions containing the hard hit Lumber and Forestry sectors:

- Loggers
- Truck Drivers & Loader Operators
- Wood Pellet & Wood Chip Plant Employees
- Wood Wholesalers
- Land Owners
- Biomass Boiler System Installers
- Biomass Boiler and Component Distributors
- Mechanical Contractors
- Electricians, Welders and other skilled trades

THE CURRENT MARKET FOR BIOMASS BOILERS IN NH

The market for biomass boiler systems is under serious stress right now. It has been since the price of heating oil began its slide in 2014.

Users of Heating Oil and Propane in the more rural areas of our state are our main targets for conversion to Biomass. As long as the prices of oil and propane stay low, enthusiasm will remain low and our projects limited. (NOTE: Our market in NH has always been defined by access to natural gas. Since Biomass has a net fuel cost about the same as natural gas it has no economic advantage.)

TROUBLE: Prospective buyers cite the higher initial cost of installing a Biomass boiler system as their main reason for not making the switch. Other impediments such as limited space for boilers and fuel storage bins, increases the cost of conversion making projects less attractive.

Froling Energy has felt a significant impact from the current low price of oil and propane. Sales of new boiler systems have dropped off as has our expected increase in demand for PDCs. This is impacting our ability to remain as a vital, viable business here. Should the Rebates and RFP Grants be taken away, we foresee our viability as a NH based business slipping away. Our employees and the unique skills they have obtained would drift away and the knowledge we have obtained will be lost. Then, when the price of oil finally rises again and viability returns, we will have to rebuild the skill set that has been the key to our success.

Trends since the oil price drop that began in January 2014:

1. **Diminished interest in wood pellet boiler projects—Commercial & Residential**
2. **Increased sales of commercial projects that burn screened semi-dry wood chips (instead of wood pellets) and are set up to generate Thermal RECs. Screened semi-dry wood chips are 35% less costly than pellets on an annual basis for the same net heat output and the cost of extra infrastructure required to burn them instead of pellets is minimal (approx 10% more).**
3. **Increased sales to much larger users of heating oil. Big users take advantage of an economy of scale for the best return on investment.**

What do we see for 2017 and beyond?

Nobody has a crystal ball that tells how long the price of oil and LP will be as low as they are today. If oil prices remain depressed, large fuel users who have failing oil or LP boilers will continue to be reluctant to consider biomass. They will stay with oil and LP.

Oil prices are a critical factor to covering our overhead and returning to profitability.

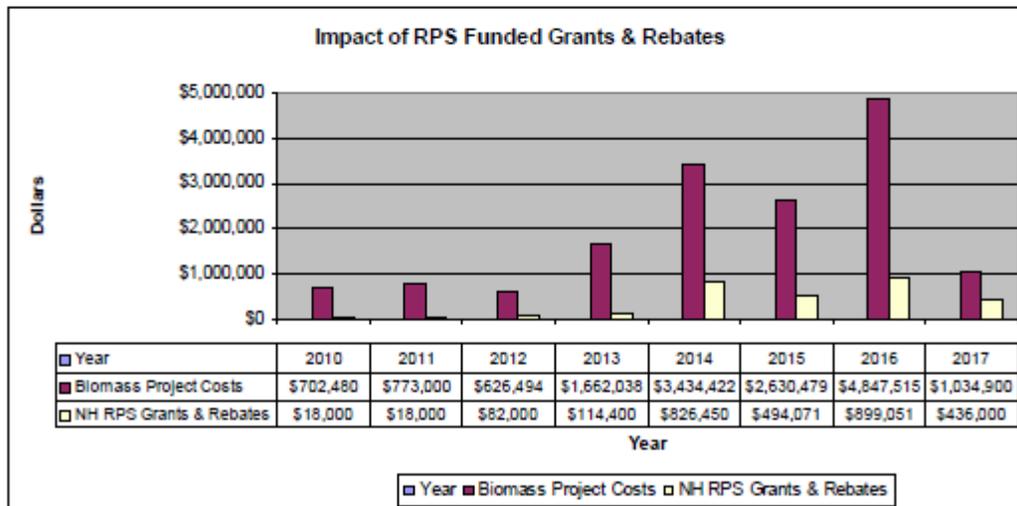
**IMPACTS OF NEW HAMPSHIRE’S RPS FUNDED PROGRAMS
 ON FRÖLING ENERGY’S PROJECTS**

Residential Biomass Rebate: All of our 29 homeowner installations received a Rebate during the 8 years it has been available. The Rebate was a significant incentive to these buyers. Total sales = \$725,800 over 8 years. Rebates = \$174,000 Our strongest sales were 2013 through 2015. Sales dropped by 70% in 2016 and no residential sales have occurred during 2017. This correlates to the big drop in the price of oil that started in 2014 and to our expanded focus on commercial projects.

Commercial Biomass Rebate: As soon as the Commercial Rebate came out in December 2013, we had a two year surge of interest in biomass boiler systems when 24 biomass boiler projects were done in schools, industrial, municipal and other commercial buildings. In 2016 we had 3 projects with Rebates and in 2017 none. These 27 total projects sold for \$5.2 million with Rebates totaling \$1.032 million The Commercial Rebate was a significant motivation for our customers until the low price of oil finally drained the enthusiasm out of that market.

RFP Grants: Froling Energy designs were submitted in 15 applications. Of these, 9 ended up receiving grants which totaled \$1,757,000. These grant monies drove total sales of \$6.18 Million. Our strongest year was 2016 with 3 projects totaling over \$4 Million with grants totaling \$825,000. Each of 2014 and 2017 had sales of just over \$1 Million with \$440,000 average in RFP grants. We had no RFP winners in 2015.

Thermal RECs, only available since January 2013, are a new income stream that has significantly reduced annual heating costs, especially for large heating fuel users. Recent sales of NH T-RECs have reduced the cost of a ton of pellets by 32% and a ton of PDCs by 50% (based on T-RECs selling for \$20 each, net).



INFORMATION ABOUT FROLING ENERGY:

Froling Energy is founded on innovation.

We were among the first companies to install and service a new generation of fully automatic wood pellet boilers at commercial and residential sites. At that time wood pellets were a rather new fuel and the only alternatives were green wood chips and chunk wood. Our people learned this new trade and continually improved their skills.

PDCs are Precision Dry Wood Chips made by Froling Energy

Four years ago we began installing systems capable of burning screened semi-dry wood chips (PDCs). At the same time we made a big investment in the first PDC production facility in the US, located in Peterborough. In our first winter we produced 1500 tons of PDCs. In the winter of 2017/18 we expect to produce and deliver over 4500 tons.

Froling Energy employs 12 people with good paying jobs in the Monadnock Region. Our projects are in New Hampshire, Vermont and Massachusetts.

THE INNOVATIONS OF FROLING ENERGY'S PDCs:

- PDCs have a net cost that is 35% less than wood pellets.
- PDCs cost the equivalent of heating oil selling for \$1.28 a gallon—very competitive.
- Combined with NH Thermal RECs, they are just \$.80 a gallon!
- Boiler systems set up to burn PDCs cost about 15% more than wood pellet systems.
- The initial cost of PDC capable boiler systems is about 40% less than comparable green wood chip systems. This is mainly due to the far less complex material handling systems.
- PDCs are delivered like pellets—from a blower truck, blown into a 5" diameter pipe.
- On site PDC storage is most often in vertical steel silos—simple and low cost.

Froling Energy made a \$1 Million investment using \$300,000 of NHPUC Grant funds to improve our PDC making capabilities at our Peterborough plant. Our new continuous feed belt dryer and 4 million BTU per hour Viessmann boiler have upped our potential to make over 10,000 tons of PDCs per winter. We would love to rise to that potential. And we will continue to innovate—improving efficiency and cost effectiveness.

Whelen Engineering – Charlestown, NH

PDC Boiler System #3



- Project Goals: To virtually eliminate all burning of fuel oil on the Whelen campus in Charlestown, NH by building their third and largest biomass boiler room yet.
- Here too they burn Precision Dry Wood Chips, a locally produced biomass fuel manufactured by Froling Energy in Peterborough.

The Biomass Boiler System:

- 2– Viessmann Vitoflex 300 RF Model KPT-540 PDC/Pellet Boilers, with a net output of 1.84 million BTU/hour each Total = 3.68 million BTU/hour
- The 3 Biomass boiler rooms at Whelen Engineering are offsetting over 150,000 gallons of fuel oil each year using Froling Energy’s PDCs. *PDC net cost is equal to #2 Oil at just 80 cents a gallon!!*
- The low cost of PDCs made this project viable!



Ash from the boiler and cyclone is augered into roll-away bins.

Two storage silos hold 84 total tons of PDCs, Froling Energy’s ground breaking semi-dry wood chip fuel.



The Viessmann Boiler Ecotronic Control panel





Plymouth Regional High School — SAU 48

Plymouth, NH

Biomass Boiler Retrofit Burning PDCs



Project Description:

- Two years prior, voters downed an expensive green wood chip boiler system that would have heated the High School and Technical Center and an adjacent elementary school.
- Then performance contractor EEI proposed a much more cost effective semi-dry wood chip system wrapped into a budget neutral total energy upgrade. Voters said YES!

The lower cost of PDCs and the boiler system that burns them made this project viable!

- A Viessmann Vitoflex 300 UF Model KPT-720 Dry Chip/Pellet Boiler with a maximum net heat output of 2.457 million BTU/hr.
- The steel storage silo holds 42 tons of Semi Dry Wood Chips or Froling Energy's PDCs
- A buffer tank integrated with the boiler holds 2,000 gallons of hot water.
- Two 1 million BTU Viessmann LP Gas boilers were also installed as peaking/back up boilers.



Merrimack County Department of Corrections



**A New Central
Boiler House and
Biomass Boiler
System for
Two Prisons**

Boscawen, NH

- Project Goals: To significantly reduce the use of oil for heat and hot water in these two prisons, One prison was currently active while the other was vacant but being brought back to full use

The Biomass Boiler System:

- 1 – Viessmann Vitoflex 300 UF Model KPT-1250 PDC / Pellet Boiler with 4.268 million BTU/hr net output
- Large distribution pipes deliver hot water from the boiler house to the two prisons above the ceilings of two new connector walkways—all built by Froling Energy
- 3,300 gallon buffer tank



Boiler Dashboard



Trucks back into the Toploader storage area to drop off chips.

High Mowing School

Wilton, NH

New Central District Heating System with Boiler House



Project Description:

- The school's 15 oil fired boilers were all aging. Their goals for replacement : to stabilize and reduce fuel costs for space heat and hot water—and to do it in a sustainable way.
- A plan was assembled to remove all of the existing oil boilers and to build a central boiler house to house both biomass boilers and new propane peaking and back up boilers.



- The biomass boilers are able to burn low cost dry wood chips—as well as wood pellets.

- This new energy diversity enables them to select from 3 different fuels, giving whole school boiler redundancy for security and cost stabilization.

- New buried pre-insulated district heating pipes now connect all nine buildings to the central boiler house

- **Dry Wood Chip / Wood Pellet Boiler System:**
2 – Froling TX Model 150 Biomass Boilers (ASME Rated) with 2000 gallon buffer tank, in new boiler room.

Total net output of biomass boilers = 1 Million BTU/Hour

- Exterior silos can hold a total of 40 tons of dry wood chips or 85 tons of wood pellets.

- **New Average Fuel Use:** 240 Tons of Dry Wood Chips — Displacing 22,500 Gallons of Fuel Oil per year

- **Projected Average Annual Savings: \$57,000**

- **Installed and Maintained by Froling Energy**

- **Commissioned: November 2014**



New England's Biomass Specialists

www.FrolingEnergy.com

603-924-1001

Dublin School – Multi-Building Heating System

Dublin, NH

Project Description:

- District Heating System: Pellet boilers are to provide most of the heat for 4 separate campus buildings through new underground piping.
- Buildings heated are Cafeteria/Dorm, Health Center, Visual Arts Center and one other small building.
- Boilers also provide domestic hot water for cafeteria and dormitory showers.
- Existing oil boiler in cafeteria building kept as a back up system but was not used during the first heating season of 2011/12



Wood Pellet System:

- 2 OkoFEN Pellematic Model PES65 Wood Pellet Boilers
- Net output = 380,000 BTU/Hour
- Pellet Boilers located in new boiler room of new Visual Arts Building.
- Exterior pellet silo has 24 ton capacity

Commission Date: December 2011

Building size: Heated space in the 4 buildings totals 14,500 sq ft

Fuel Oil Displaced by new Pellet Boilers: 9,350 Gallons

First Year Fuel Use: 82 Tons of Pellets & NO OIL!

Other firms involved in project:
Kohler & Lewis Engineering

Provided and Installed by Froling Energy,
Peterborough, NH
Project Manager: Mark Froling



www.FrolingEnergy.com

19 Grove Street Peterborough, NH 03458 603-924-1001

NH Office of Strategic Initiatives

October 26, 2017

Re: Review of 2014 NH Energy Plan

To Whom It May Concern:

I am submitting these comments as a private individual, but have served for several years on the City of Keene Cities for Climate Protection Committee. I have seen first-hand the potential for progress guided by well-considered plans (Keene's 2004 Climate Action Plan and 2007 Climate Adaptation Plan). I have also seen the challenges of working across sectors, within the constraints of established interests, and with fluctuating frameworks and policies.

Let us work together through the current energy "paradigm-shift," positioning NH to help lead the way into the 21st century.

I encourage maintenance and expansion of those parts of the Energy Plan that provide for a stable, predictable framework for programs and investors working to transition NH toward a strong future economy energized without reliance on fossil fuels imported from out of state.

Improvements in energy efficiency in all sectors are an important first step, with a relatively rapid return on investment and co-benefits with regard to improved air quality, improved health, comfort and productivity of residents and workforce, and decreased peak demand with consequent impact on electrical rates. Just to maintain current programs for energy efficiency, this will require that NH **remain in RGGI**, ideally increasing the allocation of RGGI funds to energy efficiency projects. The EERS is a step, but will need to continue to expand; availability of programs for our lower-income population will assure progress toward social equity.

The NH Energy Plan might also consider **creation of an Energy Efficiency Utility**, such as Efficiency Vermont.

Development of smart-metering and a "smart grid" will move NH toward 21st century efficiency, reliability, adaptability, and cost-control. This would also facilitate development of micro-grids which would allow NH institutions and residents to be better prepared in the event of future natural disasters such as hurricanes, blizzards, and ice storms. As we have recently seen in Texas, Florida, and Puerto Rico, distributed generation at critical facilities (hospitals, nursing homes, and evacuation centers) and for the most vulnerable populations (eg the elderly) could avoid significant morbidity and mortality.

Expansion of central and distributed renewable energy facilities will help NH catch up to its neighboring states, other US states, and the international market in adoption of 21st century energy sources. Policy measures such as the recent lifting of the net-metering cap are helpful, but other state-level policies regarding renewable energy generation will still be needed to speed the transition. Exploration of the NH's significant potential for **off-shore wind power** will be important, and potentially a significant economic driver (eg use of existing facilities and workforce at Pease AFB for manufacture and shipment of turbine technology). Exploration of emerging energy storage technologies also holds promise for NH.

Further development of fossil-fuel infrastructure (eg gas pipelines) is **not necessary**, as outlined in the Carsey Report.

Financing options for the transition to a more energy-efficient, energy self-reliant NH need not come from the State, but do need to be encouraged by the State. Models such as PACE (Property-Assessed Clean Energy) have been very successfully implemented in other states; the NH Legislature has adopted enabling legislation, but might assist municipalities looking to implement the model. There are clear **benefits to keeping income from our energy budget in-state.**

Transportation options would decrease NH's energy consumption, by encouragement of fleet fuel efficiency, use of ride-sharing/car-sharing, availability of EV charging stations, and development of additional public transportation options, including inter-city and regional connections. Transportation options would also make NH more attractive to potential business developers and future workforce.

Thank you for your attention,

Ann Shedd
Keene, NH 03431

Dear Members of the Office of Strategic Initiatives,

My name is Kyle McAdam from Gilmanton, New Hampshire and I am writing to you today to offer my comments and opinions on what New Hampshire should prioritize in New Hampshire's 10 year Energy Strategy.

According to the New Hampshire Sustainable Energy Association, New Hampshire's current energy fuels mix is 31% from nuclear, 29% natural gas, 13% coal, 11% hydro, 10% oil, and 6% from other sources. I have concerns from nuclear. Granted it does not produce any carbon dioxide as a byproduct of electricity production, and that is great, but there is the question of what to do with the nuclear waste and its safety long into the future. We also must consider whether the use of nuclear energy is sustainable. The combination of natural gas, coal and oil account for roughly 52% of our energy mix and compared to oil and coal I have a smaller concern, but a concern nonetheless, about its use. We Americans and people from New Hampshire must join with the rest of the world in reducing and eliminating our use of and addiction to fossil fuels in whatever form. I do not think natural gas pipelines will help NH's energy independence. Quite the contrary, natural gas pipelines makes NH more dependent on fossil fuels at a time when New Hampshire, the US and the world should be using less. New Hampshire should be increasing our use of renewable energy in all forms, especially wind and solar. New Hampshire needs to become energy independent or at least more energy independent and you cannot be energy independent by using fossil fuels. New Hampshire does not produce any fossil fuels and even if you consider some of the fossil fuels that we use in New Hampshire may come from somewhere else in the United States that still means that most of the fossil fuels comes from outside of our country. According to a study conducted before 2013, NH imports 90% of the energy for our homes and businesses. Energy bills accounts for 10-50% of New Hampshire residents' income. To pay for this imported energy, New Hampshire pays roughly 7% of our Gross Domestic Product. Relying on fossil fuels is harming our economy, making us more dependent on out of our country and state fossil fuel suppliers and hurting our environment. Therefore, NH should cease any investment or construction of new fossil fuel infrastructure.

I strongly encourage New Hampshire to consider increasing wind energy from off shore where the winds are strongest allowing New Hampshire residents to get much more energy from this renewable nonpolluting resource. If sited properly and with reasonable considerations, wind energy is an excellent source of energy on land or off shore. I ask that Governor Sununu request an offshore wind task force from the Bureau of Ocean Energy Management. This is only a start but an excellent start. New Hampshire should also start to consider using wave and tidal technology to help our state in renewable electricity production. Any renewable energy source, especially ones that do not pollute needs to be considered.

New Hampshire should also work on increasing efficiency. New Hampshire is currently ranked 21st in energy efficiency. Massachusetts is ranked #1 and Vermont and Rhode Island is also ranked very high. What are they doing or require that New Hampshire does not require. One way that NH can increase our efficiency is to offer rebates and incentives encouraging our residents to buy Energy Star appliances. When our residents use less electricity while accomplishing our goals is a more efficient use of energy and should be encouraged.

New Hampshire needs to encourage our residents to purchase and install solar panels and windmills. One way to do this is to offer rebates and other incentives to help residential and commercial customers purchase and install the solar panels and/or windmills. New Hampshire needs to continue the Net Metering program and either have no cap or a larger cap at a reasonable rate for both the renewable energy supplier/homeowner and the utility.

New Hampshire should also try to prioritize electric vehicles, public transportation and developing bike lanes on roads that are capable of having a bike path. Since New Hampshire only has a small handful of cities that have some means of public transportation we should also encourage our residents to consider an electric vehicle for their next vehicle choice. Recently a Stanford economic study concluded that in about 8 years it should be cheaper to purchase an electric vehicle than an internal combustion vehicle, gasoline or diesel. In order to prioritize electric vehicles we need to help private businesses to set charging stations or some other way for the electric vehicle owner to charge their car. In order to keep our tourism dollars coming into the state from these vehicles owners we need ways for them to charge their cars.

Lastly, New Hampshire needs to do more to mitigate climate change. New Hampshire should join in a growing list of state and cities around the country trying to uphold the Paris Climate Accord by reaching 100% renewable energy by 2050. In addition, if NH joins the United States Climate Alliance, the Alliance can help NH develop and implement a plan to follow the Paris Climate Accord. By having a strong Energy Strategy plan or policy can help NH tackle climate change. An energy strategy that can help mitigate climate change while also lowering or eliminating our dependence on fossil fuels and reducing our energy bills would be a tremendous help to the planet, country, state of New Hampshire and especially her people.

Thank for considering my opinion and your time.

Sincerely,

Kyle McAdam

As a native NH resident, I ask that the following requests be part of the 10 year energy strategy plan for NH:

- 1) An emphasis on clean renewable energy sources - solar, wind, tidal, and geothermal
- 2) An end to all investment in energy from fossil fuels and a halt to construction of any new fossil fuel infrastructure
- 3) A commitment to have NH join other states in upholding the Paris Climate Accord with a goal of achieving 100% reliance on renewable energy by 2050.

Your commitment to the concerns of NH voters is appreciated.

Many thanks.

Denise Clark
Milford, NH 03055

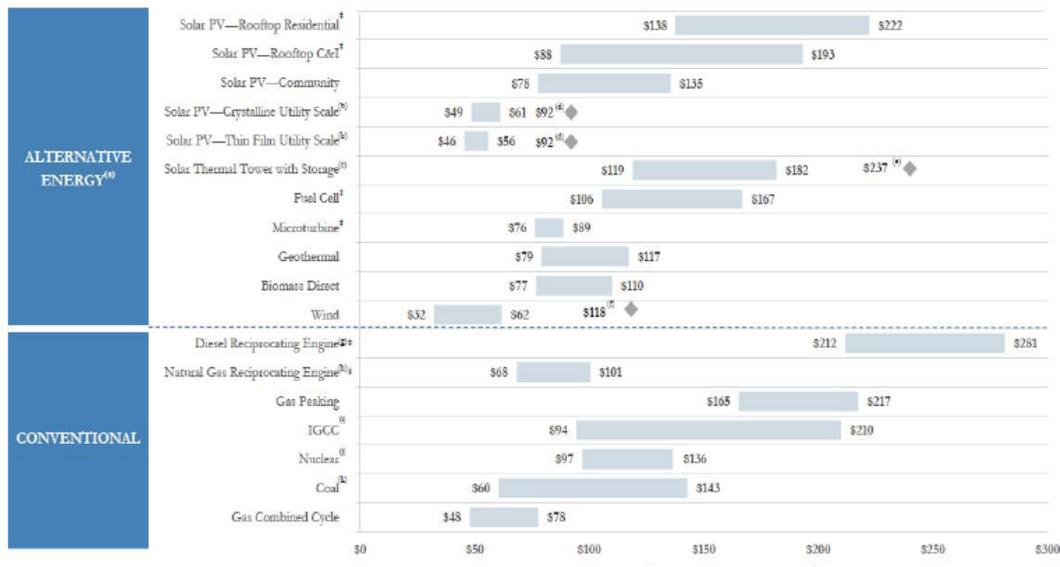
October 29, 2017

Office of Strategic Initiatives
 107 Pleasant St.
 Concord, NH 03301

Re: Comment on updates to NH 10 Year Energy Strategy

At the October 18th Public Comment Session in Dublin, there was impressive testimony from businesspeople and other citizens calling for the Strategy to focus strongly on improving energy efficiency and increasing renewable energy to strengthen NH's economy. Please make sure that these two goals are an integral part of the updated Strategy.

The era of fossil fuels is coming to an end. **Wind energy is now competitive with natural gas as a resource for electricity generation.** The financial services company Lazard reports in their 2016 Levelized Cost of Energy Analysis that wind energy is now one of the most affordable options. Lazard finds wind's unsubsidized levelized cost of energy (\$/MWh) is competitive with conventional generation in certain regions of the country, ranging from \$32/MWh to \$62/MWh in 2016, with pricing lowest in the Interior region of the country. Gas Combined Cycle Conventional Generation ranges from \$48/MWh to \$78/MWh. Clearly, wind energy is economically viable; the chart below shows Lazard's Levelized Cost of Energy Analysis results.



The cost of solar power is also coming down fast -- On Sept 12, 2017, the Department of Energy (DOE) [announced that utility-grade solar panels have hit cost targets set for 2020](#), three years ahead of schedule. Those targets reflect around \$1 per watt and 6¢ per kilowatt-hour in Kansas City, the department's mid-range yardstick for solar panel cost per unit of energy produced. Indeed, the National Renewable Energy Lab (NREL) reported that the first quarter in 2017 saw a 29-percent decline in installed cost for utility-scale solar, compared to the first quarter of 2016.

The existing 2014 Energy Strategy calls for more use of in-state energy sources like solar, wind, and biomass to increase the resilience of our electric grid, reduce our dependency on the volatile fossil fuel market, and keep our energy dollars in the NH economy. This goal must be strongly re-emphasized!

Wind and solar are becoming serious contenders for economic electricity generation. At present, NH is dependent on natural gas for more than half of its electricity. This situation is likely to continue for the near term. But to increase infrastructure investment in volatile-priced and dwindling gas while ignoring the growing economic potential of renewables would be a bad risk for NH electricity consumers.

At the Dublin session, John Kieley of Temple reported that Massachusetts has put out a Request for Proposals for renewable energy, and that many of the proposals received involve energy sites in NH. If our Energy Strategy fails to encourage the growth of renewables, NH will see our most productive sites used to send energy to Massachusetts.

The 2014 Energy Strategy found that NH lags behind surrounding states in realizing the benefits of energy efficiency, and called for establishing an Energy Efficiency Resource Standard (EERS). New Hampshire's EERS takes effect in January 2018 and sets a cumulative goal of 3.1 percent electric savings relative to 2014 kilowatt-hour sales. States that have implemented EERS have experienced three times the energy savings as states without an EERS.

NH is in dire need of increasing energy-saving investment. Our electrical energy efficiency efforts are falling behind those of other states in the ISO New England grid. ISO charges each state according to its percentage of the total New England electrical demand. At present NH uses 9.5% of the ISO generation. (Rep. Shepardson, Dublin session) As other New England states continue to increase their efficiency programs while we fail to act, NH's electric usage will become a growing proportion of the ISO grid. Our electric costs will rise accordingly.

To protect NH's economic well-being and environmental health, the updated NH Energy Strategy must emphasize energy efficiency. Implementing EERS will save NH consumers hundreds of millions of dollars at far lower cost than investing in big new energy infrastructure projects.

An excellent analysis of NH's electricity future was published in March 2017 (updated May 2017) by UNH Carsey School of Public Policy.

scholars.unh.edu/cgi/viewcontent.cgi?article=1296&context=carsey

This analysis finds no immediate need for New Hampshire to expand natural gas pipeline infrastructure. Economic growth in New England no longer requires increased energy use. From 2005-2015, real state GDP in New England grew by 9.7% while energy use fell by 9.6%.

Given the fast-changing nature of regional and global energy markets, the Carsey School study warns against the "significant stranded cost risk to electric ratepayers for large infrastructure investments with uncertain return on investment. This includes publicly-funded expenditures for new natural gas capacity."

NH ratepayers are presently stuck with significant stranded costs for the huge cost over-runs on the Bow coal plant scrubber, and for the eventual decommissioning of the Seabrook nuclear plant. Adding additional gas pipeline infrastructure at this time of transition in the energy markets is a serious risk for more stranded costs.

Natural gas's higher risk relative to cost is clearly shown in the chart below from Ceres' Nov. 2014 update to their report *Practicing Risk-Aware Electricity Regulation: What Every State Regulator Needs to Know*. Ceres is a sustainability-focused nonprofit organization working with investors and companies to create sustainable solutions throughout the economy. The chart shows that energy efficiency and onshore wind are least-cost and least risk. Although natural gas is not much more costly than onshore wind, its investment risk is more than 3 times greater.

Relative Cost and Risk of New Generation Resources

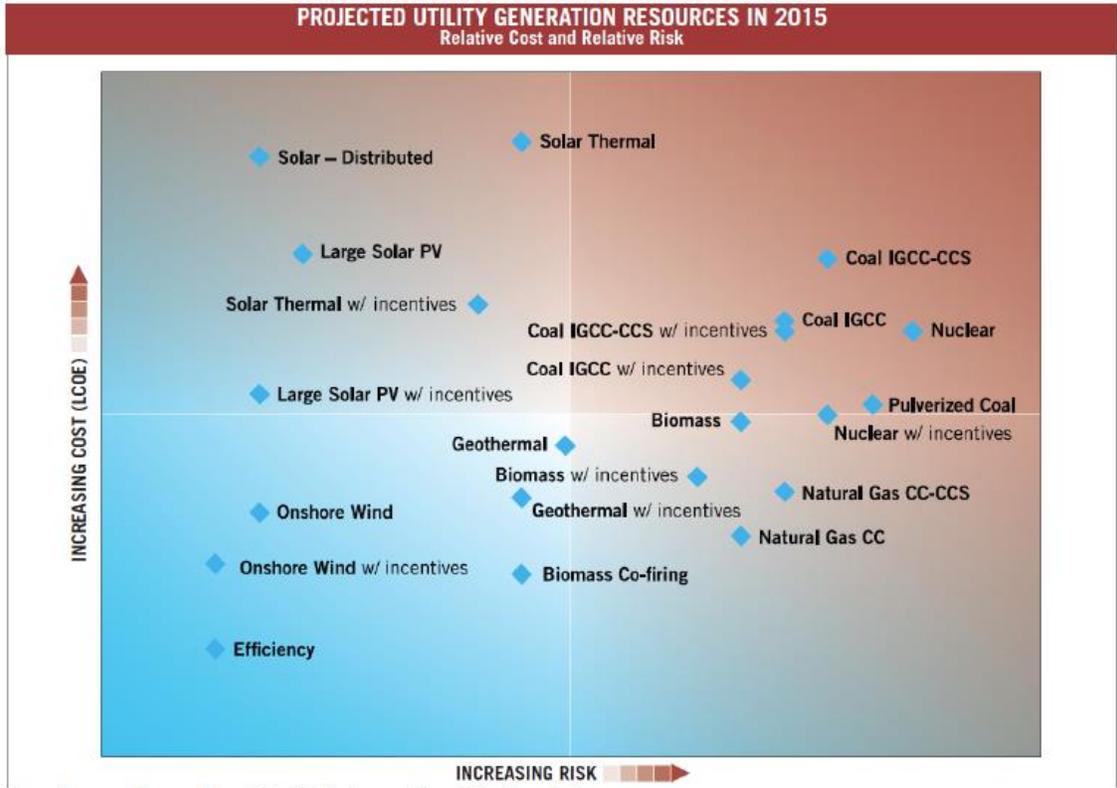


Chart Source: Ceres, *Practicing Risk-Aware Electricity Regulation*

For this reason, the Carsey School study calls for the state to do a rigorous analysis of system wide natural gas flows and prices prior to committing ratepayers to a multidecade natural gas contract. “This study should lead to an improved understanding of the difference between the technical and economic capacity of the existing system and explore opportunities to access more of the technical pipeline capacity in cost-effective ways.” (Carsey School study, pp. 6,7)

This Carsey School recommendation should be included in any updating done to the NH Energy Strategy. A system-wide analysis of natural gas flows and prices in NH must be completed before committing ratepayers to long-term natural gas contracts. This analysis should investigate the use of energy efficiency measures to reduce overall gas consumption and the use of existing LNG infrastructure to address peak demands.

To consider any expansion of natural gas infrastructure in NH without completing such an analysis would be reckless disregard for the well-being of New Hampshire’s people, environment, and economy. Thank you for considering my comments.

Sincerely,

Liz Fletcher
288 Marcel Road
Mason NH 03048
603-878-2539

Re: Comments on the New Hampshire 10-Year State Energy Plan Update on Issues Concerning the Expansion of EV charging stations.

The lack of a comprehensive statewide system of EV charging stations will provide a roadblock for the widespread adoption of electric vehicles. Although one would think that utilities would be incentivized to develop this system to increase demand, I don't think it will occur without state support and guidance. I feel that charging stations need to be readily available on our highway systems with easy public access. The state has a combination of rest areas and park and ride facilities that are presently available. There are also public transportation hubs such as bus and train stations that could be targeted for EV charging stations.

A potential public private partnership model could be one where the state provides free areas for the installation of charging stations at state owned transit facilities and the utilities actually perform the installation and management of the charging station. Personally, I feel that each utility should be required to install charging stations as a proportion of their customer base. For example, a utility could be required to install one charging station for each 80,000 rate payers by 2018, one for every 65,000 ratepayers by 2020, and so on.

There is no fossil fuels resource in our state. Every dollar that is paid to purchase fossil fuel leaves our state. However, there are many sources of in state electrical generation (hydro, solar, wind and biomass). The more the state shifts to a local grown energy economy the more sustaining that economy will be. Expanding EV charging station is one important step down this path.

Thank you for your consideration.

Sincerely,

Douglas Smithwood
PO Box 117
210 South Main Street
Wolfeboro, NH 03894

Re: Comments on the New Hampshire 10-Year State Energy Plan Update on Issues Concerning Improving Energy Independence for Low Income Families.

The "New Hampshire 10-Year State Energy Plan" makes frequent references of improving the energy security of low income families. I however do not see any effective solutions being implemented. I think that there are very viable solutions which need creativity and governmental involvement. First, energy assistance does not create energy independence; if anything it disempowers low income families and increased dependence. We as a state provide millions of dollars (approximately 19 million dollars per year) for electric assistance to low income families without a road map to help these families become energy independent for their electric needs.

Community based solar arrays with a large proportion of their electric generation going to provide low cost electricity to low income families is a very viable solution for achieving energy independence. Many low income families do not own their own home and cannot put solar panels on their rental property. In addition, rental property owners might not be incentivized to improve energy efficiency if their tenants are paying the utility bills. Even low income families that do own their own home, frequently do not have the upfront capital to pay for a solar array or the tax liability to take advantage of the federal tax credit. Even higher income families frequently cannot install solar PV systems because of site restrictions (roof orientation, shading etc.). A community solar array could be put on donated or town property, and could take the huge tax advantage achieved through third party financing.

There are so many ways the state could help make this happen.

- a. The PUC could provide enhanced rebates for community solar that provides discounted electricity to families that qualify for state electric assistance,
- b. The PUC could provide outright grants for community solar that provides discounted electricity to families that qualify for state electric assistance
- c. The PUC could require net metering (full retail rates) be payed to the portion of a community solar array that services low income families.
- d. If the community solar project is owned by a nonprofit, the PUC could incentivize the nonprofit to perform high pay back energy efficiency projects for their low income clients. For example, they could use teams of Americorp volunteers to go into low income families homes and caulk and insulate them. The PUC would reimburse this program thorough proven energy savings.

Thank you for the ability to comment on this very valuable state plan.

Sincerely,

Douglas Smithwood
PO Box 117
210 South Main Street
Wolfeboro, NH 03894

Re: Comments on the New Hampshire 10-Year State Energy Plan Update on Smart Meters and Time of Use Fee Structure to Address Electric Peaking Issues.

The financial cost to all electric ratepayers in New Hampshire to accommodate our ability to meet critical peaking events is extremely expensive. The development of resource solely to meet these events is wasteful, polluting and expensive. I believe that the best way to significantly address this issue is to have ratepayers with high electric demand during peaking events pay a market rate for that demand. Currently many electric utilities have a flat rate structure for electricity. In reality, the cost of electricity varies widely and wildly. Ratepayers that use a considerable amount of electricity during peaking events are heavily subsidized by more moderate users under a flat rate cost structure. This is unfair, very unfair. Even more than being unfair is the fact that there is no market incentive for high demand users to curtail their energy consumption during peak demand conditions.

I feel that the best we can confront this condition is through a combination of requiring utilities to use Smart meters with a Time of Use rate structure. I feel that this should have an aggressive phase in timelines. For example, the PUC could require that 10% of a utility's ratepayers have Smart meters (with TOU) by 2019, 20% by 2020 and so on.

Using financial incentives to change user's behavior is a simple and effect method to lower the peak demand and the entire infrastructure needed to support this peak demand.

Thank you for your consideration.

Sincerely,

Douglas Smithwood
PO Box 117
210 South Main Street
Wolfeboro, NH 03894

I urge the State of New Hampshire to prioritize localized and distributed clean energy as it plans for the next decade. The citizens of our state have lived with the pollution of out of state fossil fuel generation as well as poorly designed woodstove burning for far too long. Technology exists to provide reliable clean energy in our own borders--geothermal, microhydro, solar and wind power can all create jobs, maintain good air quality and make our grid more dependable in the long run.

State officials and their priorities must plan for the eventual decommissioning of the Seabrook Nuclear and it's contribution to the current baseload of electricity for NH residents and businesses. By supporting energy efficiency at all levels--institutional, commercial and business, the 10 Year Plan can decrease the electricity demand and create new jobs.

As a recipient of \$30 million from the Volkswagon settlement, our State should use these funds to support low carbon transportation--mass transit on both local and statewide levels, electric car chargers on all major highways and at all rest areas throughout the State to prepare for and participate in the coming electrification of vehicles and the move toward a lower rate of private car ownership.

Being a leader in the areas of energy efficiency, installing local clean energy and preparing for electrification of vehicles could make New Hampshire "First in the Nation" in a whole new way.

Regards,

Marjorie Rogalski
Hanover, NH

To the Office of Strategic Initiatives:

Thank you for this opportunity to comment on the New Hampshire State Energy Strategy at this important juncture. With the catastrophic effects of climate change bearing down on our state and country, there is no time to waste in looking for opportunities to hasten our move to a modern, efficient sustainable energy economy. Adding the economic benefits of keeping our energy payments here in New Hampshire makes the adoption of local sustainable energy resources the right choice for businesses and residents of New Hampshire, and ends the era of dirty power plants, utility overpayments, and stranded costs better set in the 1950s. We have learned a lot since 2014, and the future is bright for a swift move to a local sustainable energy economy.

1. Update New Hampshire's strategic goals and plans for action.

a. **Incorporate new information** gleaned since the New Hampshire 10-Year State Energy Strategy was developed in 2014. Clarify how the Strategy Update can further the interests of New Hampshire residents and businesses, provide new opportunities for growth and prosperity, reduce energy costs for residents and businesses, keep and attract young people in our state, and keep our energy dollars from flowing out of New Hampshire.

b. **The status quo is eroding our economic position.** As New Hampshire falls behind our New England neighbors in adopting energy efficiency and behind-the-meter renewables, we pay a higher share of regional transmission costs. Our rates reflect risks and costs more appropriately borne by shareholders. Our young people, their ideas and their wealth are leaving for more modern communities. Energy users can now also be energy producers and play a role in stabilizing our energy delivery systems. We need to shed old thinking about energy delivery, rates, costs and economic contributions. *This Strategy update can lead, or be a hindrance, to the determined citizen, business and community action glimpsed at the public hearings held for this purpose.*

c. **A modern energy economy is based on deepening commitment to proven efficiency techniques as well incorporation of newer technologies and information.** Smart meters and time-of-use rates alone could unfetter innovation in energy efficiency and energy delivery in New Hampshire. *A strategy update sets a clear direction and timeline and incentives to smooth the transition to a local sustainable economy.*

2. **Modernize the electrical grid and embrace infrastructure for electric vehicles.** Grid modernization, smart grids, microgrids, municipal aggregation, smart meters, time of use rates, energy storage, and fully realized infrastructure for electric vehicles all go together to usher in a modern efficient, sustainable energy economy. *New Hampshire is already playing catch up to its neighbors and the world on widespread broadband access and mass transit; Let's not add an antiquated energy system and slow adoption of electric vehicles to our list of faults.*

a. **Encourage distributed energy generation by all energy users.** Local, sustainable, renewable resources are abundant. Individual and business energy customers can also produce energy economically and contribute savings to all customers using a modern smart grid.

- i. **Restore, advertise and uncap incentives for distributed energy resources**, such as the recently suspended \$2,500 state rebate for residential solar pv projects.
 - ii. **Encourage capital to flow into the entrepreneurial distributed energy market** by providing incentives along with strong market signals and timely implementation of smart meters and time-of-use rates.
 - b. **Get ready for the opportunities presented by battery storage** including grid stabilization and peak load control that will delay or avoid the need for new costly utility-sponsored infrastructure.
 - c. **Get ready for electric vehicles** by implementing statewide infrastructure for charging electric cars.
- 3. **Increase efficiency standards to best practices for new appliances and buildings, cars and fleets**, which reduce energy bills, delay and avoid the need for new supply infrastructure and contracts, continue on the path to meet the Paris Accord goals, keep up with the energy efficiency improvements elsewhere in New England, and help avoid increased regional transmission charges.
 - a. **Renew, advertise and uncap rebates for electric heat pump technologies**, which historically are renewed annually but reach their cap and expire each year in the spring. Encourage residential upgrades to heat pump technology in a timely fashion and at the point of sale, by removing the barrier of the annual cap.
- 4. **Protect ratepayers from costs that should be borne by investors**, including the costs and risks of climate change and stranded costs caused by long-term gas and hydro contracts.
 - a. **Work within the spirit and the law of the restructuring act of 1996 to address long-term contracts.** Long-term power contracts for gas and hydro are violating the spirit if not the law of these regulations by allowing utilities to put costs and risks associated with reserved capacity on ratepayers rather than on shareholders.
 - b. **Encourage ratepayer participate in market solutions.** *Ratepayer actions behind the meter directly reduce peak demand and stabilize the grid, as well as provide benefits to entrepreneurial local businesses, communities and residents of New Hampshire.*
 - c. **Factor in the possibility of a fee for carbon emissions.** A sustainable energy system is largely immune to the costs of carbon emissions. *Energy planning that ignores the likelihood of carbon fees transfers costs to ratepayers that are rightfully borne by shareholders.*
- 5. **Keep energy payments in New Hampshire.** Local sustainable solar, wind and biomass infrastructure construction and operation increases local business profits, prosperity, property values and the tax base. A dynamic economy based on emerging technologies will attract young entrepreneurs. *New Hampshire energy users are also in-state taxpayers and business owners.*
 - a. **Increase supply diversity by reducing reliance on out-of-state gas infrastructure and contracts.** End reliance on utility company contracts that send fuel payments and profits out of state.

b. **Assist and encourage individuals, cooperatives and communities to build distributed generation.** Local companies are already providing the technical assistance to community activists needed to design great renewable projects based on solar pv, wind and local biomass.

i. **Remove legal and contractual hurdles,** and create mechanisms to foster larger coop and community-wide energy sharing projects.

ii. **Provide solutions, templates and model contracts** to encourage individuals, cooperatives and communities to develop and share power from larger renewable projects.

c. **Delay indefinitely, new or increased fossil infrastructure and contracts,** especially new fracked gas pipelines. In addition to draining energy dollars out of state and long into the future, *new gas projects expose ratepayers to market manipulation, and the health effects and costs of full-cycle methane leaks and CO2 emissions.*

i. **Acknowledge gas market manipulation has harmed New Hampshire.** Investigate market manipulation by all New Hampshire utility companies and return money to New Hampshire ratepayers or put into grid modernization and local renewable energy options. For example see: Peress and Karas, “Aligning U.S. Natural Gas and Electricity Markets to Reduce Costs, Enhance Market Efficiency and Reliability” (September, 2017), link to pdf: <https://www.edf.org/sites/default/files/aligning-us-natural-gas-and-electricity-markets.pdf>

ii. **Make stopping methane leaks from wellhead to customer delivery a condition of approval** of new and renewal gas contracts.

d. **Engage existing renewable resources in New Hampshire to stabilize our own state energy needs.** Water dams and other existing renewable energy projects in New Hampshire are bidding in markets in Massachusetts and other states. Once these projects are engaged, they will be lost to New Hampshire ratepayers, and drive up New Hampshire’s costs to meet regional and federal climate regulations.

Respectfully Submitted by Emily Caverhill Manns, Peterborough, NH (10/29/17)

Global Warming Is Here—Now!

Bob Christie

While world leaders were recently gathering to make plans to limit climate change, individual citizens in the United States needed to ask themselves:

What Can Our *Congress, US President, and NH's Governor and General Court* Do?

The Congress, US President, State Governor, and General Court can declare a national and international emergency immediately, and using any and all powers permitted to them under federal and state Constitutions, such as, or analogous to those declared when World War II was declared, to:

1. Declare war on atmospheric pollution by use of fossil fuels.
2. Lower the vehicle speed limit on ALL NH state, interstate and U.S. national highways to 40 mph.
3. Establish lower octane levels for all private gasoline-powered vehicles.
4. Institute petroleum-based gallons per month fuel rationing for all personal-use vehicles.
5. Establish in all communities and along federal and interstate roads and highways infrastructure restoration and improvement public works projects (e.g., bridges, etc.)
6. As commander-in-chief of all armed services, the US President can order a 20% reduction in petroleum-based fuels use in each military service.
7. Establish a federal minimum age for licensing for all petroleum-based vehicle operators.

8. Establish subsidies and tax advantages for the purchase and installation of solar panels for all private and public buildings, and for developing nuclear power installations.
9. Fund placement of all electrical transmission power lines underground, and fund programs to protect the electrical power grid.
10. Through the power of taxation, make the production, transportation, and consumption of fossil fuels as energy sources unprofitable.

“What Can *Individuals* Do?”

1. Inventory and scrutinize personal vehicle use and then restrict all unessential use.
2. Car-pool at every opportunity.
3. Combine private and public transportation whenever possible.
4. Demand that schools in all school districts engage in intramural rather than interscholastic sports programs requiring travel beyond the local community.
5. Demand that all public school students use local school bus systems wherever these are available.
6. Restrict vacation travel to options that employ group travel rather than individual travel itineraries.
7. Restrict new car purchase to electric or hybrid vehicles.
8. Severely limit use of air transportation for all vacation travel, substituting bus and rail transportation.
9. Encourage our offspring to delay marriage until the third and fourth decades of life: they will have time to develop useful careers and develop mature family judgment re: the environment, its reclamation and preservation.

10. Make family planning part of the home and public school educational curriculum: the fewer humans on Earth, the safer and more sustainable the environment will be in the future.

*Yes, we will yield once again more federal, state, and personal power over our extravagant earth-destructive personal freedom of behavior and our way of life for the benefit of human society and all life on the planet, but the value of the reward for attempting to save all life on our planet Earth from the Sixth Extinction is worth almost any price (look up Elizabeth Kolbert's article in Wikipedia if you haven't heard of this). **Global warming is now beyond the tipping point, but that does not relieve us from our responsibility to reverse or control it.***

To Whom it may concern:

As a citizen of New Hampshire and the planet, I'd like to speak to the urgent need to consider a carbon tax and to encourage building an energy infrastructure that uses renewable energy. Government help is needed to make our state energy efficient and 100% renewable.

Sincerely,
Mary Ann Cadwallader

Office of Strategic Initiatives
107 Pleasant St.
Concord, NH 03301

We must acknowledge that a warming climate based on scientific evidence of carbon dioxide concentrations exceeding 400 PPM in our atmosphere has severe consequences. The costs of severe storms and droughts will increasingly affect lives, property and our economy. It is particularly important to consider this in light of grid resilience. Decentralized PV and storage will provide significant advantages over large centralized plants as we've learned in the wake of record breaking hurricanes Harvey, Irma and Maria. A failure to prepare for more severe weather events will weaken our economy.

Our energy strategy must reduce risks and future energy costs, some opportunities include:

Promote energy efficiency (EE) to save money, create jobs, incubate products. This is by far the most cost effective component of any energy strategy.

Prevent stranded costs (e.g. from new natural gas infrastructure), no new natural gas infrastructure is required, see UNH Carsey Perspectives Report - [link](#)

Reduce state carbon footprint in preparation for national carbon pricing. Use a Carbon proxy price, as are some other states' PUCs and many businesses. The mounting external costs to society of burning fossil fuels must and will be accounted for.

Discourage new fossil fuel (FF) use. Since all FF must be imported by the state it should be discouraged vs locally harvested energy and EE.

Promote (preferably local) clean energy. Biomass, solar and wind are clean and harvested locally; these should be our preferred sources. Reducing the barriers to local financing of these projects will boost the economy and retain investment dollars in state.

Promote smart grid and storage technology development and use. These emerging technologies will enhance the resilience of our grid increasingly relying on EE, PV and wind.

Support assessment of off shore wind. Based on the experience of several European nations we are missing a significant opportunity.

Recognize decentralized energy infrastructure is more resilient. Our utility firms need to pursue a more resilient grid in light of the threats from increasingly violent storms.

Build an Electric Vehicle charging infrastructure. This is an opportunity that not only serves NH citizens but will increasingly be important to tourism.

Our goal/ motto might be “Harvesting NH Energy, Building Resilience”. Elements of this include:

Reduce spending on out of state resources (\$4.9 billion in 2014)

Buy less (NH is #21 in energy efficiency - far behind other NE states)

Create a state ecosystem for clean energy and efficiency to incubate ideas and products, to create and promote businesses that will be able to sell into the global clean energy market (smart grid, storage, efficiency, etc). Our older building stock is a laboratory of opportunity to develop EE leadership.

Encourage clean energy (infrastructure, use, products, and jobs)

Encourage energy efficiency (buildings, transportation, and jobs)

Job training - efficiency and clean energy deployment, manufacturing, etc.

Promote businesses that will meet needs of the global energy market

Global warming risks in NH are emerging: more frequent severe floods & droughts; maple syrup (quality is already declining); dairy (warm temperatures not favorable to milk production); foliage/tourism (maples, hemlock and birches are vulnerable); winter sports (shortened winters are already here) and the loss of many species including iconic moose are examples. We must act now.

Thank you for your consideration,

John Kondos, Chesterfield, NH 03462

Oct 30, 2017

Office of Strategic Initiatives

Dear Strategic Initiatives,

New Hampshire needs a clean energy future. As you consider revisions to the State Energy Strategy, I urge you to prioritize clean energy, energy efficiency, and achievable climate goals.

We need a state energy strategy that is built on modern energy resources like solar and wind, not on dirty fossil fuels. That aggressively uses energy efficiency to lower energy costs for families and businesses alike. That prioritizes electric vehicles so New Hampshire doesn't fall behind on the transportation revolution or lose tourism dollars. And that puts New Hampshire on a trajectory to address climate change now when it matters most, not later.

It's time for New Hampshire to lead on clean energy. Clean energy and energy efficiency bring good local jobs and reduce rates of asthma and illness among New Hampshire children. With forward-thinking investments, New Hampshire can become a climate and technology leader, keeping more money in our local economy and spending less on out-of-state oil and gas. And these investments will provide our children with the jobs of the future, not jobs sure to be phased out.

Our State Energy Strategy currently calls for strong energy efficiency programs, more clean energy, and electric vehicles. Any revised strategy should continue to call for these, and must also include rigorous but achievable greenhouse gas emissions reduction goals in line with the 80% less by 2050 objective in the New Hampshire Climate Action Plan.

I urge you to support the clean energy future we need. Thank you.

Sincerely,

Ms. April Walker
Greenville, NH 03048-3036

We believe innovations in energy programs are important to New Hampshire's Energy Future

- We believe government policy should promote freedom of choice and not stand in the way of energy efficiency and clean, diverse sources of energy production.
- We believe investments in energy efficiency and clean, diverse energy sources will contribute to more resilient towns and businesses.
- We believe energy efficiency and clean energy solutions are essential for sustainable communities, and it is necessary to continue and expand access to clean energy incentives and rebate programs

Sheri Trefry
44 Pinecrest Lane
Dover, NH 03820

Heidi Trimarco
5 Pingree Road
Hanover, NH 03755

Peter Cooper
221 South Street
Littleton, NH 03561

Victoria Parmele
6 Pleasant View Ave
Northwood, NH

Emily Manns
40 High Street
Peterborough, NH 03458

Peter Kelley
1106 Chestnut Street
Manchester, NH 03104

Larry Spencer
PO Box 279
Plymouth, NH

Ann Shedd
59 Greenwood Ave
Keene, NH

John Gage
12 Fordway Ext
Windham, NH 03087

Jeff Kerr
71 McAllister Rd
Bedford, NH 03110

Susan Fuller
PO Box 1858
Wolfeboro, NH

Wes Golomb
224 South Road
Deerfield, NH

Wendy Smith
33 Avon Shores Rd
Moultonboro, NH

Pat Martin
17 Farrar Road
Rindge, NH 03461

Michael Bruss
17 Springfield St
Concord, NH 03301

Susan Fuller
Wolfeboro, NH

Bob Hayden
17 Technology Way
Nashua, NH 03061

Joe Perez
Tilton, NH

Kaelin Chancey
Dover, NH

David Mills
99 Clinton St Apt 119
Concord, NH 03301

Chuck Townsend
Canaan, NH 0

Diana Anderson
Northwood, NH

Johanna Young
Washington, NH

Donald Leisman
Pembroke, NH

Colleen
Keene, NH

David MacKenzie
131 Gillis Hill Rd
Bennington, NH 03442

Rep. Cali-Pitts Cali-Pitts
Portsmouth, NH

Peter Somssich
PORTsmouth, NH 03801

Hope Stragnell
503 Switch Road
Canaan, NH

Kevin Porter
35 Reserve Place
Concord, NH 03301

Roger Stephenson
22 Stephen Drive
Stratham NH 03885

Dear Office of Strategic Planning Team,

I am writing as a resident of Peterborough, NH to express my input for the 10 year energy plan. I endorse a 100% renewable energy future for my beautiful state. We have proven, successful choices today with renewable energy technology. I would like to see no new fossil fuel supply development, rather sustainable solutions based on science. I want to live up to the trust that children put in us to provide safety, healthy air and water, decisions based on understanding earth's systems, and a stable world.

As a homeowner, taxpayer, mother, educator and customer of Eversource I would like to buy into a community solar project. I want all residents to have the option of buying into a solar array. I want smart meters on our homes. I want NH to offer tax exemption for solar projects for 10 years while the investment is being paid for. I want NH communities to adopt zoning laws to support investment in renewable technology. I'd love to see my state commit to the Paris Climate Accord and be a leader as we step into our future.

People travel and move to NH for beauty, year round restorative recreation, amazing foliage, clean air and water. We can attract more young families and businesses to settle here by showing our commitment to model a vibrant, sustainable, renewable energy future. So many young people I speak with want to live where smart choices are a reality.

Sincerely,

Janet Altobello

Peterborough, NH 03458

Commentary for 2017 NH Energy Strategy to update 2014 plan

Office of Strategic Initiatives
107 Pleasant St
Concord NH 03301

October 30, 2017

To Governor Sununu and Advisors:

The earth is our home. We cannot have a useful energy plan that does not take morality into consideration, especially in the modern world where we have science to inform us of what we are doing. Climate change is on the verge of that tipping point where it becomes irreversible and all people of good conscience need to give the question the priority it requires. We are about to unleash untold suffering on the next generation or even sooner because even though 97% of the world's climate scientists are telling us over and over that we need to stop emitting all that carbon into the atmosphere, the primary cause of global warming, we continue to do so. More frequently we are finding that, to the extent they have been imperfect in their projections of the destruction of our home, they have underestimated the speed with which it is occurring.

What is the cause of the refusal of Gov. Sununu, who touts that he is an environmental engineer, to consider this primary guide to what our energy policy should be? He should know better. That's why, especially for him, it is a matter of values. I want him and the people from whom he gets advice, including his fossil fuel lobbyist brother and the right wing Josiah Bartlett Center for Public Policy, to think about their moral responsibility to their children to stop this radical, reckless denial of the consequences of their behavior.

The expectation of unlimited growth is insane. Mother nature is telling us that in so many ways. Being Catholic, I hope the Governor cares what Pope Francis has exhorted him to do in his encyclical, *Laudato Si*, found online. The Pope says, "intergenerational solidarity is not optional, but rather a basic question of justice, since the world we have received also belongs to those who will follow us."

Pope Francis says the ecological problems we face are not, in their origin, technological. Instead, "a certain way of understanding human life and activity has gone awry, to the serious detriment of the world around us."

He insists that we have succumbed to a "technocratic paradigm," which leads us to believe that "every increase in power means 'an increase of "progress" itself'...as if reality, goodness and truth automatically flow from technological and economic power as such." This paradigm "exalts the concept of a subject who, using logical and rational procedures, progressively approaches and gains control over an external object." Humans have always intervened in nature, but for a long time this meant being in tune

with and respecting these gifts. It was a matter of receiving what nature itself allowed, not having dominion over it, but knowing that they too are part of nature.

With the great power that technology has afforded us, it's become easy to accept the simplistic idea of infinite or unlimited growth, which proves so attractive to economists, financiers and experts in technology. It is based on the lie that there is an infinite supply of the earth's goods, and there will be no consequences to disregarding the way that nature works. One way it works is that it requires just the right amount of CO2 in the atmosphere to keep us warm enough but not excessively so. The ocean has been helping to regulate this but we are exceeding it's capacity and now we are killing it (us). With regard to biodiversity the Pope notes that "caring for ecosystems demands far-sightedness, since no one looking for quick and easy profit is truly interested in their preservation." He also refers to those "who turned the wonder world of the seas into underwater cemeteries bereft of color and life." How can the Governor say he cares about NH residents while he is so short sighted that he ignores the destruction of our home?

Gov. Sununu says he cares about our water supply as an example of his caring about our environment. Climate change causes drought and erosive heavy precipitation events in addition to hurricanes. That is a danger to our safe drinking water supply. The spring of 2017 ended a 16 month drought in NH. Are the water levels in our wells and bedrock fully charged or are we vulnerable to another drought? What then? The foliage season was not as good this year as the trees were stressed by the drought and the leaves dried up, curled, got diseases. There are additional consequences to repeatedly stressing the trees. What about water elsewhere? What will the cost of our food be from the lack of water in the West? Will there be enough food?

Climate change doesn't stop at the NH border. The Governor understands a global business community but he doesn't acknowledge that global warming can't be left in the hands of a man who says it's a hoax. What values does that suggest?

Gov. Sununu is an environmental engineer yet he says he has not given climate change much thought! He should know that CO2 and temperature increases go hand in hand and CO2 levels in the atmosphere are way beyond the levels since humans have been on earth (when it did go higher it caused mass extinctions) and this extreme excess began when humans started burning fossil fuels-and especially in the last 50 years. Previous climate changes millions of years ago took hundreds of thousands of years, not 100 years. Many other states, cities and corporations think it is critically important to safe guard our future by taking responsibility for mitigation and adaptation. The answer to the threats to tourism related to fall foliage, warm ski seasons, maple syrup production, etc. is not to put more greenhouse gases in the air! Nor is promoting drought and erosion a way to encourage young people to want to live in NH. They want a government that actually cares about them and not just the current vested interests. This, and so much more, is about how we relate to our use and production of energy and developing resilience in the face of extreme weather events threatening our ability to produce and distribute energy. There is no more important issue for NH residents.

Why is our governor so nonchalant about it? As the disasters mount up will our Governor be saying, "Who knew"? We need leadership to address the way we think about energy, the economy and progress, not just on how we can get more energy even though it's killing us! We may need more energy but we don't have to kill our children, or theirs.

Our energy plan needs to rapidly increase locally produced renewables-for the lack of CO2 emissions, good jobs and diversity that will provide us with resiliency and a clear conscience. That is not tilting at windmills like the Business and Industry Association lobby likes to say. The information is there for those who really want to know. All the Governor has to do is express an interest with an open mind and not politicize it. Here's some info: <http://scholars.unh.edu/cgi/viewcontent.cgi?article=1296&context=carsey> and <https://www.nhepscor.org/climate-change-fact-sheets>. Let's change our ideas about the meaning of progress and not get even more dependent on fossil fuels like fracked gas (which we rely on for more than 50% of our electrical needs already)-speeding up climate change with methane, destroying millions of acres of boreal forest that take CO2 out of the air, contaminating drinking water, destroying the lives of indigenous people and displacing green technologies. Don't help the fossil fuel industry destroy their competition while globally it receives trillions in subsidies every year. Doing so leads to our great suffering and death. Life, growth, progress are not all about the money. We are not separate from the world. We must do our part, or be morally derelict.

I hope the Governor did not ask for a review of our 10 year energy plan just 3 years into it so he could reduce environmental regulations and disempower the public to further help the fossil fuel and utility industries. If so, I hope the electorate will hold him accountable.

Sincerely,

Dorothy Currier
Concord, NH

Amy Antonucci
Barrington NH 03825

October 27, 2017

The Office of Strategic Initiatives
107 Pleasant St.
Concord, NH 03301

RE: Public Comment on NH's Energy Plan

I want to state my support to increase efforts for energy conservation and efficiency, and a move to 100% renewable energy sources much sooner than plans currently call for. I also urge the Office of Strategic Initiatives to study offshore wind energy as one of those potential sources through an offshore wind task force from the Bureau of Ocean Energy Management.

I want to see New Hampshire join the many other states pledging to uphold the Paris Climate Accord by reaching 100% renewable energy by 2050 – and then I'd like NH to exceed this goal and make the move even sooner!

All of these initiatives would have huge benefits for the people of NH – economic, environmental and public health. We cannot adversely affect our environment without hurting ourselves. Oil, coal and nuclear power have well-documented negative impacts on the health of people living near those plants. Currently, we are sacrificing our health at the same time we struggle as a nation and a state to meet health care needs and costs. Let's choose another way!

Please use the opportunity of crafting the state energy strategy to move us forward, quickly, on these issues.

Thank you for listening to the citizens of NH on this matter!

Amy Antonucci

Dear Office of Strategic Initiatives,

New Hampshire, like the rest of the country, suffers from political polarization. Republicans are adamant that their beliefs are correct, while Democrats are equally certain that their own beliefs are best. Because neither Republicans nor Democrats enjoy long-term majorities in our state, our political decisions tend to meander meekly between Republican and Democratic extremes, leading to overall inaction.

Fortunately, there are some areas in which Republicans and Democrats are in good agreement. One of these is the belief that we should try to improve our state's economy.

You, the OSI, have the power to gladden the hearts of all NH citizens, whether Republicans, Democrats or Undeclared, by recommending measures for updating NH's current energy plan in ways that will improve our economy.

We all recognize that, when we purchase fossil fuels, the profits from our purchases are going out of our state, sometimes to other states, sometimes to other countries. None of the profits remain in NH, because NH does not produce any fossil fuels. We spend a lot of money on fossil fuels. By transitioning away from fossil fuels, we can stimulate NH's economy--big time.

Unfortunately, we need fossil fuels for our current energy economy, so we'll need to continue sending NH dollars to other states and countries for years to come, until we can totally replace fossil fuels with NH-produced energy. But the number of years does not have to be large, if you, the OSI, guide us toward a fossil-fuel-free future.

Here are the suggestions I would recommend to accelerate progress toward that desirable future.

1. Do not support the creation of any additional infrastructure for the importing of fossil fuels. NH does not need additional fossil fuels. The present fossil fuel level is sufficient for now.
2. Support the development of an intelligent grid within NH, a grid that can deal with daily fluctuations in demand as well as in supply, by turning energy sinks (users of electricity) on and off as needed, and by turning sources of energy (electrical producers) on and off as needed.
3. Support the development of a variety of non-fossil-fuel energy sources within the state: wind, sun, tide, biomass, and nuclear.
4. Support the development of high-capacity energy storage within the state. New Hampshire's geography is especially suited to pumped hydro storage (a proven, highly efficient technology).
5. Support the development of a gradually rising carbon fee (not tax) at the national level, with all funds from the fee to be returned to citizens in a monthly dividend payment. This is the policy that Citizens' Climate Lobby (a non-partisan, international organization, with more than 500 members in New Hampshire) calls "[carbon fee and dividend](#)." The dividend portion of this policy would protect the poor and middle class against the rising costs of goods made from fossil fuels, and much of the dividend cash inflow would be spent, stimulating the economy in NH and throughout the country.

Thanks for considering my comments.

Sincerely yours,
Joel Huberman

Joel Huberman
Co-Chair, Monadnock Chapter
Citizens' Climate Lobby (CCL)
50 Timberpond Drive #1104
Peterborough, NH 03458
(603) 924-0842
[The Monadnock Chapter of CCL](#)
[CCL in New Hampshire](#)
[Two-minute explanation of Carbon Fee & Dividend](#)
(click on the video icon at top left)



Jared Chicoine, Director
Office of Strategic Initiatives
107 Pleasant St.
Concord, NH 03301
osiinfo@osi.nh.gov
email filing

RE: Appalachian Mountain Club comments on potential revisions to ‘New Hampshire’s 10-Year Energy Strategy’

October 30, 2017

Dear Director Chicoine:

On behalf of the Appalachian Mountain Club’s more than 12,000 members in New Hampshire, thank you for this opportunity to comment on the *2014 NH State Energy Strategy* and the revision process.

Organizational Background: Founded in 1876, the Appalachian Mountain Club (AMC) is the nation’s oldest conservation and recreation organization. Our mission is to promote the protection, enjoyment, and understanding of the mountains, forests, waters, and trails of the Northeast and Mid-Atlantic regions. In New Hampshire’s White Mountains AMC has been studying the impacts of air pollution and a changing climate for more than 80 years, going back to the first recordings in the 1930s of snowfall, snowpack, and snowmelt at Pinkham Notch by Joe Dodge. AMC has been monitoring air pollution in the White Mountains over the last 30 years, and more recently has identified improvements in air quality as a result of the Clean Air Act and related clean air regulations and policies. Along with the Mt Washington Observatory and Plymouth State University, AMC received funding from NOAA from 2010-14 to assess the impacts of climate change on high elevation ecosystems.

AMC’s research on mountain ecosystems and hiker health in the White Mountains supports the urgency of addressing greenhouse gas emissions (GHG) and related climate disruptions caused by the combustion of fossil fuels, including natural gas. As outdoor recreationists, AMC’s membership, along with the many others who enjoy spending time in the outdoors, experience health effects and diminished scenic experiences as a result of haze and ozone pollution. The region’s energy use, and significant reliance on fossil fuels, also directly relates to air pollutants that impact the enjoyment and safety of outdoor recreationists, and the vitality of the resources AMC works to protect. Our location on the eastern seaboard, and the air circulation patterns created by the White Mountains, mean that New Hampshire’s air quality on a summer day can be elevated well beyond levels that might be expected in a relatively rural

AMC Headquarters: 10 City Square • Boston, MA 02129-3740 • 617-523-0636 • outdoors.org

Training & Equipment Center: 6 Spice Street • Boston, MA 02129-3740

Regional Headquarters: Pinkham Notch Visitor Center • 361 Route 16 • Gorham, NH 03581-0298 • 603 466-2721

Additional Offices: Bretton Woods, NH • Greenville, ME • Portland, ME • New York, NY • Bethlehem, PA



region. Compounding the challenge today is the Trump administration's rejection of the Paris Climate Accord, its efforts to revive dirty coal, and the dismantling of the Clean Power Plan—steps backwards that defy science and will negatively impact New Hampshire in both the near and long term. NH's energy strategy should not succumb to such backsliding.

As part of our commitment to promoting a clean energy future for our region, AMC has adopted an energy policy¹, which is updated frequently and guides our work on energy issues. Organizationally, AMC is committed to reducing our GHG emissions by 80% by 2050. We aggressively implement energy efficiency strategies and practices, and recently added a 73 KW solar array to cover electric use at our Cardigan and Three Mile Island facilities². We also run a hiker shuttle to help reduce car travel and parking issues in the White Mountain region.

Importantly, any energy strategy to address climate change and greenhouse gas emissions should not catalyze or rationalize “energy sprawl.” Our remaining open spaces and natural lands are a diminishing and increasingly limited resource in our state and around the region, and energy development such as transmission corridors and pipelines pose a significant threat to their integrity. To that end, AMC has been an active participant in efforts to enact clearer criteria for the siting of energy projects for many years. We led the effort in 2007 to develop Proposed Wind Power Siting Guidelines for New Hampshire. AMC participated in the development of the 2014 NH State Energy Strategy, and was an active stakeholder in the recent Site Evaluation Committee's pre-rulemaking process. We have a very strong interest in the updating of the State Energy Strategy as mandated by RSA 4-E:1; this strategy is an important and comprehensive tool for guiding the State's energy policy.

General Comments: The 2014 NH State Energy Strategy remains very germane. Its recommendations and priorities do not need a major revamping. Technological advancements that have occurred since its inception have only made many of its recommendations more economical and practical. Of more concern is the slowness of any implementation. Unfortunately, to date NH has been much more of a follower than a leader when it comes to forward-looking energy strategy, for example the failure to adopt more protective tailpipe emission standards, or the fact that even though NH remains in the Regional Greenhouse Gas Initiative (RGGI), it has opted out of a new feature that would enhance emission reductions, and has diverted allowance funds away from actual energy efficiency projects. As acknowledged in the 2014 Energy Strategy, NH lags regionally in implementing energy efficiency, yet dollar for dollar energy efficiency still remains the most cost effective energy strategy.

¹ http://www.outdoors.org/pdf/upload/2015_Energy_Policy.pdf

² <http://www.outdoors.org/article/amc-outdoors/cardigan-three-mile-go-solar/>

AMC Headquarters: 10 City Square • Boston, MA 02129-3740 • 617-523-0636 • outdoors.org

Training & Equipment Center: 6 Spice Street • Boston, MA 02129-3740

Regional Headquarters: Pinkham Notch Visitor Center • 361 Route 16 • Gorham, NH 03581-0298 • 603 466-2721

Additional Offices: Bretton Woods, NH • Greenville, ME • Portland, ME • New York, NY • Bethlehem, PA



Any updates to *NH's 2014 Energy Strategy* should further incentivize the modern energy strategies that it recommends, including:

- solar and other forms of distributed energy generation,
- net metering,
- demand side management,
- energy efficiency,
- both on-site and grid scale battery storage to address peak power demand periods,
- advanced transportation technologies, and
- greater mass transit options.

Revisions to *NH's 2014 Energy Strategy* should not embrace the last century's reliance on dirty fossil fuels, natural gas, or the building of large scale energy generation and transmission infrastructure to meet narrow peak power demand needs at great cost and potential risk to consumers. Highest priority should be placed on advancing energy efficiency and demand side management, as the energy not used is the cheapest form of energy. In addition to efficiency, New Hampshire also will benefit directly from advancing distributed clean energy generation. The jobs resulting from such initiatives are hard to outsource, unlike those associated with large energy infrastructure projects where the majority of the highly specialized jobs will come from out of state. They also bring greater energy independence, and cheaper power with significant environmental benefits. They will reduce air pollution that contributes to ozone and regional haze, and that negatively impacts public health and ecosystems. Efficiency and distributed energy systems will also have greatly reduced impacts on NH's remaining open space and natural areas. Any updates to *the 2014 Energy Strategy* should help make New Hampshire a leader on issues such as tailpipe emission standards, RGGI, and energy efficiency.

Transportation now exceeds electrical generation as the primary source of GHG emissions. NH's economy is dependent on its skilled work force commuting daily into southern NH and the greater Boston area, as well as the many visitors who drive into the state and support our vibrant tourist economy. AMC has calculated that the transportation GHG footprint of our destination guests exceeds our organization's annual operational GHG footprint, and this is not unusual for a tourism-related organization. As noted earlier, it is a challenge that AMC is addressing, but we cannot solve it on our own. Many of our state highways currently suffer from near gridlock traffic, and tourism destinations such as the White Mountain National Forest, Mount Monadnock State Park, and more, are experiencing serious congestion and overflow parking issues. Simply building more roads and parking lots is not a long term answer – what is needed is a transportation revolution that relies on cleaner electric cars and greater mass transit options. The future of New Hampshire's quality of life, and the quality of the natural and cultural resources that undergird our tourism economy,

AMC Headquarters: 10 City Square • Boston, MA 02129-3740 • 617-523-0636 • outdoors.org

Training & Equipment Center: 6 Spice Street • Boston, MA 02129-3740

Regional Headquarters: Pinkham Notch Visitor Center • 361 Route 16 • Gorham, NH 03581-0298 • 603 466-2721

Additional Offices: Bretton Woods, NH • Greenville, ME • Portland, ME • New York, NY • Bethlehem, PA



require this kind of transformation of the transportation sector in New Hampshire. Improvements to NH's 2014 *Energy Strategy* could include emphasis on creating greater mass transit options, more pedestrian walking and bike friendly connections, and the need to transition vehicles away from diesel and gasoline. An example is a project that AMC, with partners, participated in with the White Mountain National Forest (*White Mountain Alternative Transportation Study 2011, a blueprint for reducing traffic in the White Mountain National Forest*³).

Finally, if the Office of Strategic Initiatives decides to pursue revisions to the 2014 strategy, we urge you to model the process on previous efforts such as that which resulted in the 2014 document. That process included an extensive and transparent public involvement component, which assured that the full range of viewpoints were heard and considered.

In conclusion, the 2014 *NH Energy Strategy* includes key elements that reflect many AMC priorities as discussed above. While any strategy should always be regularly reviewed and updated, we believe the 2014 *NH Energy Strategy* continues to provide a strong foundation for moving our state towards a clean energy future. We urge you to maintain this trajectory as you consider any updates to the 2014 strategy. Revisions should not encourage and facilitate energy sprawl onto the State's remaining open spaces and natural lands. And it should not enable the export of impacts of energy sprawl into adjacent states or countries. Revisions should further incentivize energy efficiency, demand side management, distributed generation and battery storage proximate to energy demand centers, emphasizing co-location on roof tops, landfills, and other developed lands. Transmission should focus on burial in existing and appropriate major transportation corridors, including but not limited to I-93, I-89, and Route 101, whose ROW's are better suited for this additional development. This use of such burial corridors will not only protect open spaces and natural lands, but also potentially provide the state with a new revenue source through ROW rental fees.

Thank you for your consideration of our comments, and please feel free to contact me with any questions at sarnold@outdoors.org or 603-664-2050.

Sincerely,

Susan Arnold
Vice President for Conservation

³ <https://ntl.bts.gov/lib/43000/43100/43132/DOT-VNTSC-USDA-11-01.pdf>

AMC Headquarters: 10 City Square • Boston, MA 02129-3740 • 617-523-0636 • outdoors.org

Training & Equipment Center: 6 Spice Street • Boston, MA 02129-3740

Regional Headquarters: Pinkham Notch Visitor Center • 361 Route 16 • Gorham, NH 03581-0298 • 603 466-2721

Additional Offices: Bretton Woods, NH • Greenville, ME • Portland, ME • New York, NY • Bethlehem, PA



Portsmouth, NH
October 30th, 2017

NH Office of Strategic Initiatives,

We are a European company settled in Portsmouth NH since 2016 and member of the NHSEA. We have a proven track record in Europe and Asia within the solar sector by developing, designing, building and then maintaining utility scale solar installations for the last ten years.

We chose NH as our base for our US operations because of the favorable business climate, the life style possibilities and the progressive and intelligent energy policies.

On Saturday the 28th of October we attended the Local Energy Solutions Conference in Concord, NH where we learned you are in the process of updating the State's 10 Year Energy Strategy.

As a commercial business we are always looking for the best opportunities to invest and deploy business in NH, grow our employment base, and contribute to the community. We were excited when the new Net Metering Program opened the cap last September. In our opinion, the next step towards a more progressive and buoyant energy market will be to increase the limit from 1 MW to 5 MW. NH has tremendous potential for an economically active renewable energy sector and we urge you to embrace the future of renewable energy for the benefit of employment opportunities, business, the wider economy, the future of our children and our planet.

The 10 Year Energy Strategy is a good opportunity to show New Hampshire is a leading state for economic and energy development and for all of us to contribute to increase the % of the renewables in the energy generation mix to reduce the emissions, reduce the air pollution and also increase the direct and indirect jobs that this sector can offer to the State of NH.

Thank you very much for considering our opinion.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "Ildelfonso Mozas", written over a horizontal line.

Ildelfonso Mozas
SVP of Operations
PS Renewables
#155 Fleet Street
Portsmouth (NH) 03801

Dear Office of Strategic Planning Team,

I am writing as a citizen of Harrisville to weigh in on the New Hampshire 10-Year Energy Strategy.

I support a renewable energy future for our state. Rather than focusing on new fossil fuel supply development in the Granite State, I believe we should make use of the many proven, successful renewable energy technologies available to us.

I want all New Hampshire residents to have the option of buying into a solar array. I want smart meters on our homes. I want New Hampshire to offer tax exemption for solar projects. I want New Hampshire communities to adopt zoning laws to support investment in renewable technology. I want to see our state commit to the Paris Climate Accord.

People travel and move to our state for its beauty, recreation, wildlife, and other outdoor opportunities. I believe we can attract more young families and businesses to settle here by showing our commitment to a vibrant, sustainable, renewable energy future. People want to live where smart choices are a reality.

Thank you,

Brett Amy Thelen
Harrisville, NH 03450

Office of Strategic Initiatives,

My comments on the state energy strategy:

- **Aim for a mix of energy sources.**
 - No one source is the answer and over time some will become more viable than others.
 - Renewable's may be the wave right now, but are they financially viable without being subsidized, what is their long term maintenance cost (we hear stories about wind turbines unused because of the expense to repair them) and what hidden environmental impacts are they having (the impact of mining to provide materials to build solar panels for example)?
- **Promote energy sources that are located close to the end user.**
 - Can't for the life of me understand why we transmit electricity from Canada to Massachusetts and Connecticut. It is too easy to disrupt the supply to too many people at once, either naturally or on purpose!
 - Encourage home energy systems and small group systems.
 - Shorter transmission means lower cost and less power loss as with long distance transmission.
- **Do a cost/benefit analysis before mandating change to different types of energy.**
 - The change to renewable energy is happening without government mandates and will continue to do so.
 - Energy generation from carbon sources will get cleaner and/or will eventually be phased out through natural selection.
- **Even if our climate were warming because of human activity we cannot fix anything quickly.**
 - Much science indicates that the climate change is a naturally occurring event for this planet and nothing we do will change that.
 - Don't let the doomsdayers and radicals dictate our policy- everything in moderation.
- **No Northern Pass**

Thank you,

Denis Ward

Monroe, NH 03771

To whom it may concern,

It is well recognized that New Hampshire's state energy supply has a strong effect on our ability to grow and attract new businesses. If one looks at the short term cost of energy, it might seem that investing in a natural gas heavy mix makes sense. The flaw in that approach is we don't have a domestic supply of this fuel in our state. We will be at the mercy of prices set by others, just as we would be with oil or coal. Natural gas may currently be relatively inexpensive, but guessing at the cost of such a commodity ten years down the road is problematic. We can generate our own electricity with solar panels and wind turbines, and the largest cost of these is the capital investment rather than the ongoing cost of fuel. New Hampshire's long term energy independence would be well served by putting most of our investment into these sources. They have the side benefit of creating less pollution than other sources, which fits well with our outdoor tourism industry. An additional advantage at this point is that the cost of capital investment had dropped substantially in the last few years, so they are even more competitive over the long run with fossil fuel sources. Granted, we will continue to need conventional generating plants to balance loads during low solar production times, but a move towards a much higher proportion of solar and wind in our mix is a move towards greater energy independence.

Rep. Peter Bixby

Strafford 17

In reviewing the state energy plan, please consider the following.

According to the federal Department of Energy, Energy Information Agency, New Hampshire has the 5th highest residential electricity costs nationally, and the 3rd highest costs in the continental United States. Additionally, the state has the 6th highest costs nationally (and 4th in the continental US) for commercial and industrial users. This represents a competitive disadvantage to attracting and retaining employers in the state, as well as a substantial burden on residents, particularly those of lower income or fixed income.

https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_5_6_a

Accordingly, it is in the best interest of New Hampshire's economy, as well as the quality of life of New Hampshire residents, that the state should seek to adopt policies that reduce electricity costs statewide. These efforts should begin with mitigating the state-enacted policies that artificially drive up the costs of electricity, as well as expanding access to affordable energy.

Such a plan should consider:

1. **Rebating the remaining RGGI costs back to ratepayers** – Currently, the state's participation in the Regional Greenhouse Gas Initiative includes a penalty for the first dollar of each carbon allowance that is borne by the ratepayer. Any cost for carbon allowances above this ratepayer penalty is rebated. Rebating this final dollar back to the ratepayer would represent immediate relief from these costs. The New Hampshire House will get an opportunity to move forward with a full rebate of these penalties with HB 592, which will come before the full House in January.
2. **Reducing the impact of the Renewable Portfolio Standard (RPS) on ratepayers** – The state's RPS system is dysfunctional, given that Massachusetts and Connecticut have much greater penalties for failure to comply with delivering government-mandate percentages of various classes of renewable energy sources. As a result, MA & CT electricity distributors are willing to pay a greater price to purchase the Renewable Energy Credits (RECs) than New Hampshire distributors. As a result, NH distributors pay the penalty for failing to comply with these standards as a cost of doing business. These penalties are then passed along to New Hampshire ratepayers, driving up costs. A solution to this would be to rebate these penalties back to ratepayers, similar to the current process within the RGGI program.
3. **Eliminate Energy Efficiency Resource Standard surcharge** – The Energy Efficiency Resource Surcharge adds 2-3% to ratepayer bills from 2017-2020. While these funds are set aside for the goal of lowering electricity demand, there is no guarantee that they will result in any increase in performance, while there can be no doubt that it raises costs. It combines with other programs that necessarily increase expenses, but do not necessarily achieve programmatic goals.
4. **Increase supply of affordable energy** – The simplest way of reducing energy costs to a level similar to other US states would be to increase the supply of affordable energy. The state should start by reconsidering the decision not to build a second reactor at Seabrook Station, and if changes in state policy during finalizing deregulation might impact this prospect. Additionally, finding new affordable sources should become a top priority for the state.

Thank you for the opportunity to participate in this discussion. Please feel free to contact me if there are any additional questions.

Greg Moore | State Director | Americans for Prosperity – New Hampshire
m: 603.303.9297 | e: gmoore@afphq.org | twitter @gregmoorenh

To the Office of Strategic Initiatives,

As organizations devoted to convening New Hampshire businesses committed to advancing clean energy and energy efficiency in the Granite State, New Hampshire Businesses for Social Responsibility (NHBSR) and Ceres are pleased to submit the following statement of shared principles signed by New Hampshire businesses. The statement, entitled “Investments in Clean Energy Help New Hampshire Businesses Thrive,” outlines business support for transitioning to a clean energy economy to improve our competitiveness, and our state’s prosperity, health, and security.

These principles represent the views of a large portion of New Hampshire’s business community, and we are pleased to submit them as written testimony to the State’s 10-year Energy Strategy updates.

Sincerely,

Michelle Veasey

--

Michelle Veasey
Executive Director
New Hampshire Businesses for Social Responsibility
P.O. Box 3562 | Concord, NH 03302 | 603-391-8471 | www.nhbsr.org

Jared Chicoine
Director, NH Office of Strategic Initiatives
Governor Hugh J. Gallen State Office Park
Johnson Hall, 3rd Floor
107 Pleasant Street
Concord, NH 03301

October 31, 2017

Dear Mr. Chicoine,

As organizations devoted to convening New Hampshire businesses committed to advancing clean energy and energy efficiency in the Granite State, New Hampshire Businesses for Social Responsibility (NHBSR) and Ceres are pleased to submit the following statement of shared principles signed by New Hampshire businesses. The statement, entitled "Investments in Clean Energy Help New Hampshire Businesses Thrive," outlines business support for transitioning to a clean energy economy to improve our competitiveness, and our state's prosperity, health, and security.

These principles represent the views of a large portion of New Hampshire's business community, and we are pleased to submit them as written testimony to the State's 10-year Energy Strategy updates.

Sincerely,



Michelle Veasey
Executive Director
NH Businesses for Social Responsibility (NHBSR)



Alli Gold Roberts
Senior Manager, State Policy
Ceres

Attached are my comments about the 10-year Energy Strategy. Thank you for the opportunity to comment!

All the best,

Whitman

Whitman Constantineau

Senior Outreach and Engagement Intern

Sustainability Rich Media Fellow

University of New Hampshire

[The Sustainability Institute](#)

107 Nesmith Hall, 131 Main Street

Durham, NH 03824-3547

wlc2000@wildcats.unh.edu

603.793.3575

To: New Hampshire Office of Strategic Initiatives
107 Pleasant St.
Concord NH 03301

From: Whitman Constantineau

Date: 10/19/2017

RE: Comments Regarding Potential Updates to the New Hampshire 10-Year Energy Strategy

Thank you for the opportunity to provide these comments on the 10 Year State Energy Strategy. I have reviewed the sections on grid modernization, focusing primarily on the suggestions concerning consumer behavior and education. I wholeheartedly agree with the steps being taken to modernize New Hampshire's grid in an attempt to begin transitioning to a Smart Grid. However, large changes like this may invoke apprehension and concern within our state residents if they aren't properly educated on the benefits of the improvements. I'm heartened to see in the second recommendation that the need for education and outreach will be addressed. By properly educating our residents, not only will the programs be more widely accepted, they will see accelerated participation. These educational opportunities need to begin now, so as to minimize resistance to the retrofitting of the grid. These opportunities should not simply be information posted on websites or simply released to the public for their consideration. I hope that utilities and the State will design programming in which residents can attend workshops, lectures, and other events for engagement with real world professionals in which they can gain knowledge and experience with the systems that will be coming into play in the near future.

When a government agency releases a statement saying they will be gathering information from individual households, a lot of red flags go up in people's minds. This information is vital to building a responsive smart grid, but it could certainly rub people the wrong way if their immediate assumptions are not met with proper education. I'm sure the balance between protecting privacy and gleaning meaningful information will be determined, but residents must be made aware of what's going on. Of course, it is their own prerogative to seek out this information, but not everyone will do so. Thus, it must be as convenient as possible for these residents to become educated on the future of our energy grid.

As I see it, this is all about how the education is framed. Many may not necessarily be on board with a Smart Grid simply for the environmental benefits. The framing must include details about economic benefits, health effects, social welfare, etc. With increased participation will come reduced peak load and residents will be more aware of their energy usage throughout the day. This opportunity for education is one of the more important aspects of this energy plan. It is my hope that these programs are approached with careful consideration, as the future of the culture of renewable energy relies heavily on the outreach and education opportunities that are made available for New Hampshire. The information provided in this energy strategy leads me to believe we will see broad-sweeping, positive change and I am happy to see these steps being taken.

Thank you again for your time and consideration.

All the best,

Whitman Constantineau

Whitman Constantineau

Senior Outreach and Engagement Intern

Sustainability Rich Media Fellow

University of New Hampshire

[The Sustainability Institute](#)

107 Nesmith Hall, 131 Main Street

Durham, NH 03824-3547

wlc2000@wildcats.unh.edu

603.793.3575

I am a small hydroelectric generator and developer, active in New Hampshire since 2011 and nationwide since 1997.

I have experienced a significant bias in the NH State Energy Strategy against small generators, and small hydroelectric in particular that is presumed to have the environmental effects of large hydroelectric, that aren't actually an issue at the smaller facilities.

Please be aware in developing your Strategy of the unintended consequences of focusing on the larger generators.

Please ensure that Distributed Generation is incentivized, as that is an effective way of supporting a critical mass of small generators to provide comparable benefits to larger generators.

--

Kelly Sackheim

Principal, KC Hydro family of companies

mobile: (916) 877-5947 (-kwhs)

*Eversource-NH customers can sign up to receive a 1-cent/kilowatt-hour (kWh) rebate by providing a copy of one of their electric bills OR providing their account number and billing zip code with authorization for KC Hydro to access their electric bill using the Eversource website

nationwide: (301) 401-5978 (-kws8)

fax/voice-msg: (603) 571-5947

www.kchydro.com

Keep up the work toward Energy Efficiency, renewable energy and providing tax breaks for those NH citizens who improve their homes and offices. Also, please work toward more towns making the commitment to 100% Renewables!

Onward!!

Carol Weingeist
Hanover, NH 03755

Office of Strategic Initiatives
107 Pleasant St.
Concord, NH 03301
Re: Comments on Strategic Plan
31 October 2017

Dear Sir/Madam,

Since I was not able to attend one of the listening sessions, I am writing to share a few comments about the review of the [New Hampshire 10 Year State Energy Strategy](#). I would like to thank you for the listening sessions and for the opportunity to comment on the plan. Overall, I feel that the current plan (2014) is quite adequate in that it is broad in scope and well-conceived. So, my comments are organized in four tiers: personal initiatives and the needs of my family; efforts and planning by the Town of Lee; the State and regional perspective; and the international efforts.

For our family, over the last several decades, our efforts have focused on conservation and improved efficiencies. From setting personal benchmarks for improving transportation and household efficiencies, to buttoning up our home, to working in better harmony with the landscape around our home, we have become much better stewards. Central to these efforts is the increased access to outreach and educational opportunities in sustainability, stewardship and resilience that are available on many levels from many groups and agencies. Since self-reliance is a hallmark of New Hampshire history, it is a bit odd to need to 'relearn' these skills; however, this is our collective circumstance. Within New Hampshire, the State, the University System and Extension Services, institutions of higher learning, K-12 schools, non-profits and private institutions play a most critical role in this re-education. Educational outreach and lifelong learning opportunities are vital to communities. If anything, the State needs to expand these programs and provide additional funding to schools, higher education, municipalities and community organizations to continue and expand the programs.

In my hometown, Lee, I have been active on a number of committees and commissions, both in the school district(Oyster River) and the town. Like many New Hampshire communities and school districts, Lee and Oyster River have the advantage of a comfortable scale for instituting change, not too small and not too large. Most of my recent personal efforts have been focused on farmers/ local food, sustainability and resilience. Lee just completed its Master Plan in 2016 and, perhaps like other communities, our vision, goals and actions include many of the elements that are a part of the [New Hampshire 10 Year State Energy Strategy](#) (2014). So, at least on paper, we are somewhat coordinated. A good start. For your reference, you might consider viewing: the [Vision](#) (page iv), [Sustainability and Energy](#) (pp.15-17) and [Agriculture](#) (pp.18-20) from Lee's Master Plan 2016-2026.

On a statewide level, and within the New England region, we are both energy and food insecure. Since we do not produce much of our own energy or food, we are subject to distant markets and a range of factors that are somewhat beyond our control (transportation, weather, labor, etc.). We can (and must) become more self-reliant and resilient...able to quickly adapt and recover from disruptions in energy and food. Under the present model, our collective welfare and our economy are vulnerable in ways that are increasingly difficult to justify. Where fossil fuels were the economic backbone, they have become an extreme liability, a threat to our economy and our environment. The progress that New Hampshire has made with solar, wind and biomass has been impressive, but larger projects and initiatives need to be planned, funded and undertaken. As neighboring New England states move forward with large scale solar and offshore wind projects, New Hampshire needs to seize the moment and invest heavily in these technologies. Also, with a wealth of biomass resources and the need to open up more arable land for agriculture, New Hampshire is uniquely postured to achieve both a higher degree of energy independence and a distinct food production autonomy. Thanks to State and local initiatives, plus public and private partnerships, the foundation for change is in place, as evidenced by the growth of local food production and the commissioning of a range of local alternative energy projects. The State needs to frame and lead the plan for the next level.

In closing, perhaps the most important action on the international platform is the Paris Climate Accord. Even though the United States has abandoned the Paris Accord, and the Trump Administration denies climate change, New Hampshire needs to be guided by the principles of the Paris Accord. Climate disruption and the related impacts are very real and significant challenges. Transitioning from fossil fuels to renewable technologies and an outright reduction in carbon-based emissions are central to a secure and sustainable future for the world of nations.

Sincerely,
Paul L. Gasowski
Lee, NH 03861

RE: Comment on state energy plan

We need to put the fight against climate change at the center of our energy policy, promote renewables and get off fossil fuels.

Laura Aronson
Manchester, NH 03102

To: The Office of Strategic Initiative

From: John Tuthill

Re: NH's Strategic Ten Year Energy Plan

Comments

It is good to hear that the OSI is seeking comments on the Ten Year Plan and I hope the State of NH will continue to expand an active dialogue with the public about the region's energy future.

Equally important is for NH to stand firmly for dramatic reductions in CO2 and other greenhouse gases, while the administration at the federal level abdicates its responsibility to future generations. We need strong advocates at the local, state and regional level to carry forward the critical work of designing and implementing energy systems and programs for the future which do not imperil ecosystems humankind is dependent upon, to protect the social fabric and economic stability of our civilization.

I urge NH's executive branch to join Vermont and other states in moving into a leadership position on energy conservation, efficiency and the rapid development of renewables while reliance on fossil fuels, nuclear and combustion technologies are scaled back to meet targets in line with the Paris Agreement.

NH has already paid a heavy price for its commitment to nuclear power in the late 20th century, but as we in SW NH are learning now with Vermont Yankee, the challenges of managing nuclear waste are going to be multi-generational and extremely difficult, (and expensive) to manage. It is time to close Seabrook Station.

Waste-to-Energy is another technology NH embraced early and needs to transition away as soon as possible, while developing zero waste strategies in line with models being developed in parts of the United States and in Europe. The primary shift should be towards producer responsibility which creates the economic incentives to reduce waste at the points of production and consumption.

Please include discussion of strengthening the Regional Greenhouse Gas Initiative in the 10 year plan. RGGI can be an effective tool for the important change NH must pursue.

Sincerely,

John Tuthill
Acworth, NH
03601

To: New Hampshire Office of Strategic Initiatives

107 Pleasant St.

Concord NH 03301

From: Andrew Hartnett

Date: October 19, 2017

RE: Comments Regarding Potential Updates to the New Hampshire 10-Year Energy Strategy

Thank you for the opportunity to address your 10-year energy strategy. Recommendation 2 of the New Hampshire 10 Year Energy Strategy is to educate consumers about a smarter grid. The plan discusses how better education implementation will ensure a smoother transition to a smarter grid. As consumers learn the benefits of a smarter grid, more consumers will invest in smart grid technologies, which will benefit consumers, utilities, and the state both monetarily, and in the acceptance of newer energy technology. However, the recommendation offers little research into how other state education strategies have worked. Actual numbers and statistics would offer a far more concrete reasoning for education of the public. Additionally, the plan could offer a list of what aspects of a smarter grid could be more easily made accessible to the public. For example, peak demand hours may make sense to a residential consumer, but energy generation, and utility money making strategies may be too far removed from the public's home situation to be necessary to learn. The strategy offers little to no explanation of how it will implement better education strategies. There are no educational meetings, public relation moves, smart grid campaigns, or any other public forum events planned, nor is there any plan on how to go about planning such events.

If properly implemented, smarter grid education could reduce peak demands and peak demand costs, saving consumers money, and reducing the need for expensive and environmentally harmful peak plants. Knowledge of individual opportunities, such as net metering, solar PV, select energy usage, etc,

would encourage residential citizens to invest their own capital into innovative technologies that further promote the smart grid, thus deflecting the cost from the state and utility to the consumer. Programs like “Smarter Grid Solutions” in New York offer residential and industrial education packages that show energy users the options they have to provide their own energy and be more energy efficient. Such programs could benefit smart grid implementation, if offered. At this time New Hampshire offers little opportunities for the public to educate themselves about smart grid technologies except for small private or town meetings. New Hampshire groups like the VEIC and NCSL have plans that highlight the want and need for public education, but offer no actual plans for outreach.

The recommendation should stand, but should be updated to offer more specific plans for physical action, as well as address more potential advantages and benefits of smart grid education. Little stands in the way of implementing such education short of state funding and lack of public awareness on the importance and benefits of smart grid education. Projects like the Smart Grid Peer-to-Peer Workshops that were conducted across different U.S. regions (looking at the Northeast workshop for information on New Hampshire) offer a look at how education can be implemented and how consumer involvement can influence the construction of a smart grid. However, the workshop was held in 2011, and little has been done in the 6 years since. Education could be one of the first stages of moving toward a smart grid because it does not require future technologies or technical specialists. Rather, it needs community outreach specialists and volunteers with a basic understanding of available technologies. It is one of the most accessible and action-ready recommendations in the strategy. If the education recommendation is not implemented, the smart grid will almost certainly suffer setbacks through utility/consumer divide, and an unwillingness to adopt new technologies.

Thank you again for your consideration in reading my comments and concerns.

Best,

Andrew Hartnett

To whom it may concern,

I am a citizen and student with some relative background knowledge on the energy strategy for New Hampshire, and would like to have my comments reviewed and considered as a stakeholder in New Hampshire's energy future. I am available for follow up comment if needed. My comments in full can be found in the attached document.

Thank you,

Andrew Hartnett

Efforts must be focused on renewable energy, not just digging more and more out of the ground.
Eve Goss

My input for the 10 year plan.

Need for existing residential homes to have an energy efficiency rating label when put up for sale.

To keep the Buyers Informed and Educated about purchases that use energy, it seems everything you buy has an energy efficiency rating like a car with MPG, appliances with efficiency ratings, HVAC with efficiency rating, \$0.50 light bulb, etc. **So why doesn't the most expensive invest of a home for most people have an energy efficiency rating?** How do Buyers make informed and an educated decision as to what to buy for a home?

I suggest to have existing homes up for sale to have an energy efficiency rating label prior to being listed, like just about everything else that uses energy.

A rating system already exists by the US DOE – called the “Home Energy Score” (HES) and already exist in NH. It 1.) rates a home in terms of energy efficiency (scale of 1 to 10 with 10 being best), 2.) suggest recommendations to improve score (helps make buyer knowledgeable in how to improve their home to use less energy and save money), and 3.) shows estimated savings \$\$ for energy improvements.

To get a score is fairly inexpensive and perhaps that would be a good use of some tax property stamps dollars.

In addition if a home scores favorable, there is an impact on better mortgages through Fannie Mae and FHA.

More info: <https://betterbuildingssolutioncenter.energy.gov/home-energy-score>

I know NH is all about educate and not regulate, but I don't see any education for home Buyers how to buy an energy efficient home or how to make one they buy more energy efficient. **If homes are using less energy, then much easier and less expensive to shift to renewable clean energy.**

Thanks,
Bob

Bob Eldredge
Concord, NH

In regard to the state energy plan, the focus needs to be on making New Hampshire a more competitive place to live and work. Right now our electricity costs are among the highest in the country, and while the state has numerous advantages, from no general sales or income tax to the quality of education to having the lowest poverty rate nationally.

However, our uncompetitive energy prices are a fly in the ointment of our economy. Combined with lowering business tax rates and more competitive electricity costs, New Hampshire could be a national leader in attracting employers here, which would allow more of our residents to work here, as opposed to the over 100,000 individuals who have to leave the state each day for work. This would allow for more time with families, less time wasted in commutes and a greater overall quality of life, without mentioning the advantage to the state's revenues of having these employers here.

To get there, we need to start by reigning in the costs of state government programs that drive up electricity costs, such as the Regional Greenhouse Gas Initiative, the Renewable Portfolio Standard, the Energy Efficiency Resource Standard and an inefficient net metering scheme. All of these drive up energy costs for consumers, both residential and commercial/industrial alike.

This needs to be coupled with new energy sources that will lower costs. This could involve new supply from natural gas, large scale hydro, nuclear or other economical sources. We encourage the state to explore each and every low-cost electricity source in the effort to make New Hampshire better positioned to both meet its long-term energy needs and make the price more affordable.

Please consider the needs of energy customers as you put forward your plan.

Sincerely,

Ross Connolly | Grassroots Director | Americans for Prosperity – New Hampshire
m: 603.530.1151 | e: RConnolly@afphq.org | twitter @ConnollyRoss

Dear Friends,

Please seriously consider maximizing use of renewable energy such as solar and incentivizing builders and homeowners to create energy conserving homes.

This is such an important issue and I deeply appreciate your taking my request into serious consideration.

Thank you,
Karen McCall

Dear Office of Strategic Initiatives:

I strongly support an energy policy in NH that develops alternative and sustainable energy approaches such as solar, wind, and biodiesel and moves us away from dirty and expensive fossil-based fuels. And please stop the use of ethanol additives to our gasoline (as you work towards our dependence on the gasoline engine). It takes more energy to produce a gallon of ethanol than that gallon of ethanol produces.

Thank you,
Mark Reynolds
Antrim, NH 03440

Dear Joseph Doiron and Jared Chicoine,

It was good to meet you at the Lebanon Public Comment event to address the State Energy Strategy. I so appreciate expressing my concerns as a citizen. That's the way democracy works! I hope these written comments will be helpful for your process of seeking to be the best public servants of all in addressing the critical need for an aggressive energy strategy for the citizen's of New Hampshire. With more time to think about what else I wanted to say, I have created the attached document. Thank you for inviting us into this process that makes all the difference in the world about how we take care of each other.

With gratitude and hope for our energy future,

Rebecca MacKenzie

*Rebecca B. MacKenzie, LICSW
PO Box 304, Claremont, NH 03743
603-504-2851*

"And now I give you a new commandment: love one another. As I have loved you, so you must love one another." Jesus in John 13:34 (GNT)

What's your ACTS Now and Green Dot intention?

ACTS Now Mission Statement: To engage, educate, and empower local citizens to build ecologically and economically sustainable and socially just, resilient and loving communities through managing our resources equitably and honoring that of the Divine in all.

Green Dot: see claremontgreendot.org The next 1 hour Green Dot Overview Training is on Nov. 8th, 10-11 AM at Granite State College in Claremont and the 5 hour Green Dot Bystander Training is on Nov. 30th, 10 AM to 3 PM, same place. Please help STOP VIOLENCE in our community! Learn direct and indirect ways of intervening.

Dr. Martin Luther King, Jr.'s message about the work of the Beloved Community: https://youtu.be/leCzzRY_Rl8



Action Collaborative for Transition to Sustainability Now (ACTS Now)

Contact: *Rebecca MacKenzie*
P.O. Box 304, Claremont, New Hampshire 03743 Cell: 603-504-2851 reb178@myfairpoint.net

October 31, 2017

State of New Hampshire
Office of Strategic Initiatives
Johnson Hall
107 Pleasant Street
Concord, NH 03301

Re: Public Comment on the NH State Energy Strategy

Atten: Joseph Doiron, Deputy Director, NH State Energy Program Administrator
Jared Chicoine, Director, OSI

Dear Joseph Doiron and Jared Chicoine:

As an active member of the Action Collaborative for Transition to Sustainability Now (ACTS Now), I appreciate the opportunity to address the NH State Energy Strategy. I like the 2014 Strategy and will emphasize its key points in my comments. I have a concern, though, about NH's current administration appearing weak and lacking foresight in promoting an energy future that is visionary and meets the current global need for decisive, forward thinking. I hope reflection on the 2014 State Energy Strategy and the information gathered during the public comment period will help to ground the path ahead that meets the needs for NH citizen's energy policy and practices in the near future and for generations to come. Missteps in this area of energy strategies will drastically cripple our State and her citizens, and even worse, could actually injure her citizens and our economy.

I would like to start by affirming concerns illustrated in the 2014 State Energy Strategy:

- We need a more flexible and resilient electric grid to support new technologies, increase consumer participation in energy management, and fortify our resiliency in the face of price and supply volatility and extreme weather events.
 - Open a PUC Docket on grid modernization. Other states are doing this. See Section 3 in the NH State Energy Strategy.
- Increase investments in cost effective energy efficiency.
 - This is the low hanging fruit: energy conservation. It reduces our reliance on imported fuels, provides a boost in the state's economy by creating in-state jobs, and lowers energy costs for consumers and businesses.
 - We need a state-supported, consumer-friendly energy efficiency program that meets the need of all residential and business energy consumers in our state. The savings will be dramatic.
 - Set an energy efficiency goal.
 - Address utility disincentives to energy efficiency.
 - As previously mentioned, improve the coordination and design of existing efficiency programs.



Action Collaborative for Transition to Sustainability Now (ACTS Now)

Contact: *Rebecca MacKenzie*

P.O. Box 304, Claremont, New Hampshire 03743 Cell: 603-504-2851 reb178@myfairpoint.net

- Look at Vermont's energy efficiency programs to see how they are leaders in the field that are exceptional and consumer-friendly.
- Make energy efficiency programs accessible for low income residents of NH. This is a must.
- Fuel choice must diversify.
 - NH imports all her fossil fuels that generate energy that run our households, businesses, schools and government. Fossil fuels make us vulnerable to dwindling supplies and the volatility of the marketplace.
 - We need to expand our renewable energy options to decrease our dependence on fossil fuels. We need to make renewable energy development more attractive to leading energy developers. NH discourages renewable energy development compared to incentives in other surrounding states.
 - We need to increase our Distributed Generation with solar and wind to create more resilient energy distribution systems that are less dependent of large generation projects. These systems also can create jobs by installing smaller generation sources that are localized, increasing resiliency.
 - Financing for these smaller Distributed Generation systems needs to be accessible, consumer-friendly and affordable.
 - NH needs to expand Renewable Energy Property Tax Exemptions that can incentivize development by making Distributive Generation systems more affordable.
- We *must* increase our transportation options.
 - These options need to incentivize vehicle energy efficiency, access to alternative fuel vehicles, incentives to decrease vehicle miles traveled, and increasing the efficiency of traffic flow.
 - NH needs to build the infrastructure that supports electric vehicles (EV). This reduces our dependence on fossil fuels and reduces harmful emissions that affect our health in many ways.
 - All other New England states, and a total of fourteen states across the country, have adopted the California Low Emission Vehicle (LEV's) standards and Zero Emission Vehicle (ZEV's) standards. These standards create incentives to auto manufacturers to sell low and zero emission vehicles. We should have access to alternative fuel vehicles and can benefit from lower transportation costs and emissions.
 - This access to LEV's and ZEV's requires access to public charging stations. Surrounding states are ahead of NH on EV adoption.
 - Our NH government needs to demonstrate leadership within the state by developing her own EV fleet and charging infrastructure.
 - We needs to modernize the financing of its transportation infrastructure. It is no longer adequate to meet the needs of our citizens.
 - NH government needs to expand and coordinate mass transit.
 - NH government needs to support efforts to maintain and expand rail use.
 - NH government needs to expand ride-share programs and park & ride options.
 - We need to encourage community development that promotes walking, biking and enables transit options to meet local energy goals and increases public health.
 - NH government needs to reduce unnecessary idling through education and incentives.



Action Collaborative for Transition to Sustainability Now (ACTS Now)

Contact: *Rebecca MacKenzie*
P.O. Box 304, Claremont, New Hampshire 03743 Cell: 603-504-2851 reb178@myfairpoint.net

- We need to encourage use of smart traffic controls that reduce wait times and limit vehicle idling at traffic lights.

There is much wisdom in these energy strategies. Unless we prioritize our energy future, we will remain the least prepared state in New England, and among the weakest of the states in the United States, to create an adequate response to the current energy needs of the day.

We must prioritize renewable energy like solar and wind, not dirty fossil fuels or dangerous nuclear energy. With rising sea levels which have already impacted cities in the United States, NH's nuclear power plant, Seabrook, located on the coast, creates a formidable risk to our State's citizens and our nation. Documented extreme weather events have risen in the recent decades and are predicted to continue to increase in the coming decades. These will impact our coastal areas and put us at increased risk of a nuclear disaster.

We need to aggressively use energy efficiency to lower energy costs and reduce health-harming pollution that effects our most vulnerable citizens, our youth and our elderly. The NH Climate Action Plan illustrates these challenges well. Link to the Climate Action Plan:

https://www.des.nh.gov/organization/divisions/air/tsb/tps/climate/action_plan/documents/nhcap_final.pdf

NH is falling behind in the transportation revolution that moves towards electric vehicles, putting at risk our tourism industry.

We need to reduce our dependence on fossil fuels, including development of the natural gas industry, which poses dangerous risks and disastrous incidents experienced in other states in our country and around the globe. Pipeline explosions are some of the most heinous disasters in the fossil fuel industry. Let us no longer consider this source of fossil fuel as a desired part of our energy portfolio.

Additionally, biomass "renewables", and the use of our forests for the creation of wood chips for energy production, is a fallacy. Though our forests are marketed as a renewable resource, unless the trees that are harvested today were planted thirty or forty years ago, or more, specifically for harvesting for the energy production for today, they are not part of a "renewable" resource portfolio. Our forests are carbon sequestering organisms that we need to absorb the run-away tons of carbon in our atmosphere. Renewable energy is solar, wind, and hydro-power. We need to balance our energy consumption with our energy production. That requires a very different lifestyle than we currently have, and an economic model that takes into account people, planet and profits, not just corporate profits.

I wish to thank the current administration for agreeing to improve the Regional Greenhouse Gas Initiative, for not halting key measures of progress in areas like energy efficiency, and for not vetoing important legislation to expand solar. Please continue to look at these areas of improvement and visionary thinking that will put NH citizen's interests ahead of antiquated and weak energy policies and practices.



Action Collaborative for Transition to Sustainability Now (ACTS Now)

Contact: *Rebecca MacKenzie*
P.O. Box 304, Claremont, New Hampshire 03743 Cell: 603-504-2851 reb178@myfairpoint.net

With this all said, it is really up to our legislators and administrative team to prioritize these energy strategies and find responsible ways of financing them. Will there be the collective wisdom from those who work in Concord for our citizens to see these strategies as vitally important to the people and communities of NH? Will our state government see the importance of making major changes in our current energy strategy and new ways of paying for these changes, or will business as usual prevail? What will it take to demonstrate the foundational need for change? We had a devastating wind storm, reaching hurricane wind speeds in our region a couple days ago. An estimated 300,000 people were without power, schools were closed, businesses were affected, home owners have major damage due to this storm. We need to understand that “extreme weather” is not going away. We need to prepare for and deal with the reality of global warming. As a social scientist and psychotherapist, I have begun educating colleagues, clients and communities about the need for skills to create mental health resilience in this new era of natural disasters. Our current energy strategy, business as usual, dependent on fossil fuels, fails us. As a state, we can do better. We need to do better. We need the public and private spheres of our communities to move forward with energy strategies that are going to make a difference in how our children and grandchildren experience life in our state. The future is in our hands.

Again, thank you for this opportunity to address the State Energy Strategy and encourage the adoption of many of the good, forward-thinking programs of the 2014 State Energy Strategy as well as emphasis on renewable energy as we prepare for our future. We have many important choices to make.

Sincerely,

Rebecca B. MacKenzie, LICSW

Hello,

I want to add my voice as an advocate for the greater expansion of renewable sources in the state's energy plan. The economics of renewables are compelling. Our personal home solar array will pay for itself after 7 years, yielding the equivalent of an 8-10% annual return over its expected 3 decades of employment.

It is a foolish action to continue betting our time, resources and infrastructure on a technology that leads to a dead end of polluted air, contaminated water and torn up landscape when at our fingertips is something just as powerful, but more so, given the collateral benefits that come along with it.

There is no doubt, fossil fuels have given us incredible advances, and remarkably, renewables have caught up. We must take advantage of this while leaving our air cleaner, our climate system less erratic, and creating an economic feedback loop that retains our energy dollars in New Hampshire where they will continue to enrich our communities.

We've waited for a long time to be able to harness the power of the sun and the wind. That time is now. Lets step into a richer, cleaner future.

Micum Davis
MAA Certified Arborist #2209
ISA Certified Tree Risk Assessor
181 Drew Road
Madbury NH 03823

www.cornerstonetree.com



The issue of renewable energy goes beyond fiscal responsibility. It is also a matter of health, and sustainability.

Green/renewable, is where our future is headed. By security NH as a leader in the field, we are protecting the interests of all new Hampshire citizens, as well as staking claim to the influx of young people and green money, which will be investing in these practices.

I will be voting strongly along side this issue and will encourage others to do the same.

Thank you,
Andrea Pickett

To Whom it May Concern,

I want to add my voice as an advocate for the greater expansion of renewable sources in the state's energy plan. It's time to take climate change seriously, and adopt alternative energies. The economics of renewables are compelling. Our personal home solar array will pay for itself after 7 years, yielding the equivalent of an 8-10% annual return over it's expected 3 decades of employment.

It is a foolish action to continue betting our time, resources and infrastructure on a technology that leads to a dead end of polluted air, contaminated water and torn up landscape when at our fingertips is something just as powerful, but more so, given the collateral benefits that come along with it.

There is no doubt, fossil fuels have given us incredible advances, and remarkably, renewables have caught up. We must take advantage of this while leaving our air cleaner, our climate system less erratic, and creating an economic feedback loop that retains our energy dollars in New Hampshire where they will continue to enrich our communities.

We've waited for a long time to be able to harness the power of the sun and the wind. That time is now. Lets step into a richer, cleaner future.

Sincerely,

Jennifer Wilhelm, Madbury, NH.

Jennifer Wilhelm

Research & Communications Associate, New Hampshire Food Alliance

University of New Hampshire

The Sustainability Institute

107 Nesmith Hall, 131 Main Street

Durham, NH 03824-3547

Jennifer.Wilhelm@unh.edu

To Whom It May Concern,

I would like to suggest that the first priority for NH's energy strategy should be to promote 100% renewable energy. Fossil fuels are a limited resource, unsustainable, and cause crippling damage to our environment. If we make switching to 100% renewable energy the State's uppermost priority, then we can keep energy dollars in the state (instead of sending all our energy dollars out of state as is the current situation). It would mean supporting the installation of onshore and offshore wind turbines and large scale solar farms at appropriate sites. It would mean installing electric vehicle charging stations everywhere possible to encourage the use of electric vehicles. It would mean purchasing electric cars and buses and trucks for the state's fleet of vehicles, when existing vehicles come to the end of their useful life. It would mean rejecting oil and gas pipelines in favor of renewable energy solutions. I firmly believe that New Hampshire would find that switching to renewable energy will bring significant savings over the long term in all sectors -- electricity, heat and transportation. Such a transition would also open up new job opportunities and innovations in the renewable energy arena. Promoting renewable energy instead of staying stuck with fossil fuels is the smart thing to do for New Hampshire.

Thank you for your time and consideration.

Sincerely,

Joanna Sharf

Cornish, NH

Long ago, in college, I developed the capacity of writing last minute papers. I hope my talent still remains.

I live at 411 Middle Street and am passionate about reversing climate change by 2025 an admittedly unreasonable goal. However, as a wise man by the name of Werner Erhard once said, “take on something really big; it will expand you” I say this by way of inviting everyone to join me in this exciting adventure. And there is no better way that I have found than to become involved with Citizens’ Climate Lobby.

Thank you to the OSI staff for organizing the comment sessions. It takes a lot to listen and really a lot to listen to many people, each with their own perspective. And thanks to all of the citizens who have participated thus far. I was particularly struck by the number of young people who will inherit the results that we produce today. Who says that young people don’t participate in the democratic process!

My perspective is shaped by the **realities of climate change** per the folks at the Yale Climate Change Communications group and my friend John Gage,

- **Global Warming is real**, the science is settled
 - The scientific community understands this the public does not yet
- **It’s us**, CO2 emissions are driving global warming and primarily our consumption of fossil fuels are generating CO2 emissions
- **We’re sure**
 - Close to 99% of peer reviewed scientists now concur on both the points above
- **It’s Bad**
 - The International Panel on Climate Change has concluded at this point we are facing, “high to very high risk of severe, widespread, and irreversible impacts globally”
 - The CO2 in the atmosphere is now well over 400 pts/Billion, higher than it has been going back at least 150,000 years.
 - Whole Civilizations have disappeared because they did not take action in the face of climate events
- **We can Fix it**
 - The solution is clear, reduce CO2 emissions
 - Since individuals control less than ½ of emissions, government must act
- **We are in action and more is needed**
 - Our current trajectory will not get us anywhere near meeting the Paris Target of no more than 2 degrees Celcius
 - Carbon Fee and Dividend will start impacting emissions relatively quickly
 - The growth of Renewables helps but is still at a disadvantage due the preferential treatment of fossil fuels

All of this leads me to the following requests of those updating the Energy Plan

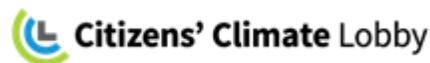
- Focus on how we as a state can get to 100 % renewables

- Focus on what are the next steps for improving the energy performance of our building stock
- Focus on how to sell reduced automobile usage,
 - Carpooling
 - Multi Modal transport, bus, train, bicycle and walking
- Create Feedback Mechanisms
 - It is hard to know what action to take if the past is not being made clear
- Get the presence of the plan and it's accomplishments out to the public
- Track and report Renewable consumption against fossil fuels
- Go beyond the Legislative Mandate
- Plan for alternative futures and consider what it would take to generate a fossil fuel free economy
- Be prepared for changes of circumstances
 - Current Plan contemplates fixed resources and essentially status quo as to fuel consumption
 - As our recent storm patterns have shown storms are getting bigger and more frequent
 - Plans are based on forecasting the future, an impossible task

This is it. Thank you for considering my perspective.

Climate Change 101, <https://docs.google.com/document/d/1hZIQ0fQZ4uli81D-GNVj4zZ86c2R-CvX3PCvuFORKsc/edit>

Complete with footnotes



Wes Tator
 603-661-2867
wes@2bgreenprofitably.com

411 Middle St, #5
 Portsmouth, NH 03801-0565

There is nothing in a caterpillar that tells you it's going to be a butterfly.
 Margaret Fuller

Dear Mr. Ellms and the staff at the Office of Strategic Initiatives:

We urge the Office of Strategic Initiatives to develop a 10 year state energy plan that promotes a transition to clean, efficient 100% renewable energy.

Because NH offers many opportunities for renewable energy options including wind, solar and hydropower, we believe this focus on sustainable energy will keep the energy dollars local thus supporting economic development in NH. By curtailing our reliance on fossil fuels, this approach will promote a healthier environment for our region by reducing greenhouse gas emissions.

This energy plan should include a strategy for educating the public about energy efficiency, weatherization and the economic and health benefits of renewable energy sources. Furthermore, to promote this plan there needs to be strong policies in place that encourage and support a shift toward 100% renewable energy options.

In conclusion, a strong energy plan that strives for 100% renewable energy will benefit our economy, the health and well being of our citizens and the vitality of NH's environment. It makes sense to have this be the focus of the 10 year state energy plan.

Thank you.

Sincerely,

Nancy Kelley-Gillard
William Daniel Gillard
Keene, NH 03431

To the Office of Strategic Initiatives,

We were made aware that the deadline for public comment on the 10-Year Energy Plan Review has been extended to Monday. We will be submitting an updated letter with additional business signatories as we have heard from additional businesses since our 10/31 submission.

Sincerely,
Michelle Veasey

--

Michelle Veasey
Executive Director
New Hampshire Businesses for Social Responsibility
P.O. Box 3562 | Concord, NH 03302 | 603-391-8471 | www.nhbsr.org

Hello,

Please find attached comments from Brookfield Renewable on the review of New Hampshire's 10-Year State Energy Strategy. We thank OSI for conducting this review and for the opportunity to provide comments.

Kindest regards,
Roxana

Roxana Lund
Manager, Policy | Gestionnaire, Politique
North America | Amérique du Nord

Brookfield Renewable | Énergie Brookfield

41 Victoria, Gatineau (Québec) J8X 2A1
T 819.561.2722 poste/ext. 6957 C 819.446.4589 F 819.561.7188
roxana.lund@brookfieldrenewable.com
www.brookfieldrenewable.com

**STATE OF NEW HAMPSHIRE OFFICE
OF STRATEGIC INITIATIVES**

_____)
)
)
RSA 4-E:1 Review of the New Hampshire
10-Year State Energy Strategy)
)
)
_____)

**RESPONSE OF BROOKFIELD RENEWABLE TO
REQUEST FOR WRITTEN COMMENTS**

In response to the New Hampshire Office of Strategic Initiatives’ (OSI) request for written comments in the above referenced review, Brookfield Renewable (“Brookfield”) is pleased to submit the following written comments.

Brookfield Renewable has a strong presence in New England, including over 1,300MW of carbon-free resources in ISO-NE and a further 1,000MW that can be imported to New England from New York and Quebec. Our renewable hydro, wind and pumped storage resources are available to help meet the energy needs and environmental objectives of New Hampshire and the region. In New Hampshire, our operations include 8 hydropower facilities, representing almost 45MW, as well as a 99MW wind facility (Granite).

The New England electricity market is undergoing a period of rapid change and states are leading the transition towards a more flexible and decarbonized electric grid. Given this rapidly changing environment, Brookfield applauds New Hampshire’s commitment to regularly review its 10-Year State Energy Strategy (“Strategy”). Regular reviews will guarantee that the Strategy continues to “ensure reliability, safety, fuel diversity, and affordability of New Hampshire’s energy sources”.¹ The current review is particularly timely as it also aligns with the forthcoming review of New Hampshire’s Renewable Portfolio Standard (RPS) in 2018.²

We thank the OSI for the opportunity to offer our comments as part of the review of the Strategy. Our comments focus on opportunities to increase the supply of Class IV resources under the RPS to drive down ratepayer costs and ensure that New Hampshire can fully leverage existing

¹ RSA 4-E:1.
² RSA 362-F: 5.

small-scale hydropower facilities to cost-effectively meet its renewable energy needs.³ We also wish to highlight the importance of remaining engaged on ongoing discussions at ISO-NE on integrating markets and state public policies.

1. Size Cap on Class IV Hydropower Facilities

As part of the review of the 10-Year State Energy Strategy and forthcoming review of the RPS, Brookfield strongly encourages New Hampshire to consider increasing the size cap on Class IV resources. Together with exempting in-state Class IV facilities from mandatory fish passage installation, where not required by the Federal Energy Regulatory Commission (FERC) (discussed further below), this simple change will help New Hampshire achieve its renewable energy objectives while also driving down ratepayers costs by increasing the participation of larger existing hydropower resources within the RPS. Just like smaller hydropower units, these resources are long-lived, proven and contribute to increasing reliability and fuel diversity, while reducing reliance on fossil fuels.

2. Fish Passage Requirements for Class IV Hydropower Facilities

In 2012, the New Hampshire Legislature enacted amendments to the definition of Class IV hydropower resources to exempt facilities with a capacity of 1MW or less from a requirement to install upstream and downstream fish passages, so long as FERC has not required such passages, and the facility is interconnected to the New Hampshire electric distribution system. Brookfield recommends that New Hampshire extend the exemption from installing fish passages, where not required by FERC, to all in-state Class IV facilities.

Class IV facilities that do not fall under the current exemption must install both upstream and downstream diadromous fish passages and these installations must be approved by FERC, even if FERC has not mandated their installation. This mandatory “one-size-fits-all” approach fails to take into account facility-specific circumstances, such as whether fish passage is warranted or whether other measures are in place, or could cost-effectively be implemented, to mitigate impacts on fish. Moreover, all hydropower facilities undergo a rigorous licensing process administered by FERC – with robust state participation – during which a host of potential environmental impacts, including fish passage, must be studied and mitigated. There is no compelling reason, therefore, for New Hampshire to impose additional fish passage requirements on Class IV hydropower facilities beyond those required by FERC. Where needed, fish passage conditions are imposed as part of the licensing process. Moreover, many hydropower facilities will be undergoing relicensing in the coming

³ New Hampshire's RPS requires that 25.2% of retail electricity sales be supplied from renewable sources by 2025 and thereafter. Of this amount, 1.5% of retail electricity sales must be supplied from Class IV facilities, which are existing small hydroelectric facilities. Class IV facilities must:

- 1) Have begun operation prior to January 1, 2006;
- 2) When required, have a documented applicable state water quality certification under Section 401 of the Clean Water Act; and,
- 3) Either:
 - a. Have a nameplate capacity of 5MW or less and have installed both upstream and downstream diadromous fish passages, which have been approved by FERC; or,
 - b. Have a nameplate capacity of 1MW or less, comply with applicable FERC fish passage requirements, and be interconnected to the New Hampshire distribution system.

years and will be required to make significant investments to meet the highest and best environmental standard of the day.

The fish passage requirements unnecessarily and arbitrarily limit the supply of hydropower resources available to New Hampshire to meet its RPS requirements, driving up ratepayer costs. While there is almost 300MW of small (under 5MW) hydropower within ISO-NE, less than 50MW is currently certified to participate in New Hampshire's Class IV program. In New Hampshire, less than half of the hydropower facilities under 5MW are certified to participate in the Class IV program.⁴

The lack of supply of Class IV resources is adding costs to the electricity bills of New Hampshire homeowners and businesses. Over half of Class IV compliance in 2015 and 2016 was achieved through Alternative Compliance Payments (ACP)⁵ and Renewable Energy Certificates (RECs) are regularly trading at close to 95% of the ACP due to artificially constrained supply. Under current market conditions, Brookfield estimates that compliance costs for the Class IV program alone could reach over \$5.6 million in 2025 (or almost 20% of total RPS compliance costs in 2016 despite the fact that the Class IV program represents only 1.5% of total demand). Extending the exemption from installing fish passages, where not required by FERC, to all in-state Class IV facilities represents a straight-forward way to tap into additional hydropower resources that are already required to comply with stringent state and federal environmental and fish passage standards.

3. Market Mechanisms and IMAPP

Brookfield strongly believes that many of the renewable and carbon reduction objectives being pursued by states can be most efficiently and cost-effectively achieved through a well-designed wholesale market that explicitly accommodates states' individual public policy objectives. Specifically, we believe that ratepayers will be best served – and greenhouse gas emissions reductions will be most cost-effectively achieved – by implementing a strong and transparent carbon price that incentivizes new technologies, but that also acknowledges, maintains and optimizes existing non-emitting resources. The New York Independent System Operator (NYISO) recently issued a formal study examining the integration of carbon pricing into its wholesale market. The NYISO study concluded that “a carbon charge would be a straightforward and economically efficient way to harmonize New York's environmental goals and the wholesale market design by pricing the environmental externality associated with carbon emissions directly”.⁶ We are, however, cognizant of state objections to pursuing this approach and, as a result, have brought forward – along with generator, utility and NGO partners – an alternative Forward Clean Energy Market (FCEM)

⁴ Information on small-scale hydropower capacity is taken from the ISO-NE 2017 Capacity, Energy, Loads and Transmission (CELT) Report. Information on Class IV certified facilities is taken from NEPOOL GIS.

⁵ New Hampshire Public Utilities Commission, New Hampshire Renewable Energy Fund, Annual Report, October 1, 2017.

⁶ Pricing Carbon into NYISO's Wholesale Energy Market to Support New York's Decarbonization Goals, prepared by the Brattle Group for NYISO, August 10, 2017. Available at: http://www.nyiso.com/public/webdocs/markets_operations/documents/Studies_and_Reports/Studies/Market_Studies/Pricing_Carbon_into_NYISOs_Wholesale_Energy_Market.pdf.

proposal that would harness market competition and still allow states to achieve their individual decarbonization and clean energy goals at lower costs.⁷ Our initial cost-benefit analysis indicates this proposal would yield annual rate-payer savings of close to \$500 million for New England states, while also addressing the states' public policy objectives.

New Hampshire law requires that the state's 10-year Energy Strategy consider "New Hampshire's role in the regional electric markets, how the regional market affects the state's energy policy goals, and how the state can most effectively participate at the regional level".⁸ New Hampshire recognized the role wholesale markets can play in achieving state objectives in the 2014 Strategy, noting that, "electricity markets must support state action to build a more resilient and flexible grid, and this is an area where New England can be at the forefront of wholesale electricity issues".⁹ For these reasons, we urge New Hampshire to remain closely engaged in the regional Integrating Markets and Public Policy (IMAPP) stakeholder process.

Thank you for the opportunity to provide comments and please do not hesitate to contact us should you have any questions.

⁷ Additional information on the Forward Clean Energy Market concept is available in A Dynamic Clean Energy Market: Straw Proposal for a Long-term IMAPP Design, presented at the NEPOOL Integrating Markets and Public Policy Forum on May 17, 2017. Available at: https://www.iso-ne.com/static-assets/documents/2017/05/imapp_20170517_composite.pdf.

⁸ RSA 4-E:1.

⁹ New Hampshire 10-Year State Energy Strategy, New Hampshire Office of Energy & Planning, September 2014.



October 31, 2017

Office of Strategic Initiatives
Governor Hugh J. Gallen State Office Park
Johnson Hall, 3rd Floor
107 Pleasant Street
Concord, New Hampshire 03301

Dear Office of Strategic Initiatives:

The American Council of Engineering Companies of New Hampshire (ACEC-NH) is pleased to provide our comments on the Office of Energy & Planning's 10-Year State Energy Strategy issued in September of 2014. As you may know, the former Department of Environmental Services (DES) Commissioner, Mr. Thomas Burack, asked ACEC-NH to participate in the generation of the 10-Year Energy Strategy. Representatives of ACEC-NH attended the public meetings and provided testimony.

The 10-Year Energy Strategy was developed with input from State Representatives, the DES, students from the University of New Hampshire, various interest groups and representatives interested in job creation. One aspect of the group that was clearly absent was input from the technical community. The focus of the group was on low hanging fruit. It is evident in the 2014 report that energy conservation and transportation improvements were the focus. Although these are admirable topics, the more immediate need is for clean power generation. Reducing electricity consumption and greenhouse gases will not offset the increase in demand for power as the State economy grows. Further, it is acknowledged that there is a trend for companies to leave the state because of high energy costs. New Hampshire needs an energy policy to shape infrastructure and markets to form the basis for robust economic improvements. New Hampshire currently spends \$6B on energy of which \$4B leaves the state, representing a significant drain on our businesses and households. The policy should be able to produce measurable improvements by increasing competition to decrease costs, and should incentivize renewable energy, to slow the amount of exported dollars.

According to the 2014 report, there is a significant potential for future contributions from solar photovoltaics (PV) and off-shore wind (Section 5.2, page 38). We know these forms of distributed power generation are technically viable as evidenced by Massachusetts achieving its renewable energy goal of 400 MW in 2014. As such, the State of Massachusetts has increased their goal four-fold to 1,600 MW by 2020. In addition, Rhode Island has constructed the country's first off-shore wind project while Maine, Massachusetts and New York have off-shore wind projects in development. New Hampshire should deconstruct the traditional rate structure model in favor of a time variable rate design which would allow residential consumers to control their costs while reducing the demand for additional infrastructure by offering energy and demand options. New Hampshire should offer incentives to install infrastructure designed to accommodate distributed renewable energy. There does not appear to be a plan for this growth and it is not addressed in the plan.

Relative to Transportation, we are entering a new generation of personal and public transportation, and New Hampshire needs to keep pace with these developments. New Hampshire should adopt the California Zero or Low Emission Standards, as have all other New England states. Currently, several models of renewable energy vehicles are sold at dealerships throughout New England – but not New Hampshire – because our neighboring states and adopted the California Zero or Low Emission Standards.

New Hampshire needs to invest in or incentivize electric vehicle charging stations. The EV charging network is grossly inadequate and there have been virtually no additions to the network in the past few years, while our neighboring states are adding stations weekly. EV charging should be installed along our transportation corridors, particularly at rest areas. Some of these are equipped with EV stations that only service Tesla vehicles, while excluding all other EVs which rely on industry standard charging specifications.

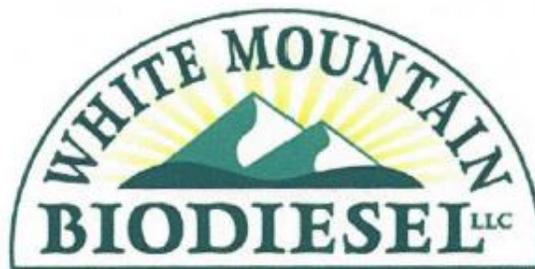
In summary, too little attention is being paid to clean power generation and making it available to the businesses community and the public. Lack of affordable energy contributes to New Hampshire's sputtering economy. ACEC-NH has over 65 member firms that are involved in the energy and transportation industries. Our member firms are more than willing to assist the Office of Strategic Initiatives in enhancing New Hampshire's energy supply through the promotion of utility scale renewable energy resources and transportation improvements. Please feel free to contact us if we can be of assistance.

Sincerely,
ACEC-NH

Alex Koutroubas
Alex Koutroubas
Executive Director

Gary M. Garfield, PE
Board of Directors


Peter King, PE
Board of Directors



October 31st, 2016

Jared Chicoin, Director
NH Office of Strategic Initiatives
Governor Hugh J. Gallen State Office Park
Johnson Hall, 3rd Floor
107 Pleasant Street
Concord, NH 03301

Director Chicoin:

My name is Wayne Presby and I am a managing member at White Mountain Biodiesel located in North Haverhill, NH. I am submitting this testimony in support of adding the use of biodiesel to the state of New Hampshire's 10-year energy plan.

Biodiesel is an engineered fuel and substitute for petroleum diesel made from plant oils, beef tallow and other animal by-products and is defined in New Hampshire RSA 259: 6-a as *"a renewable special fuel that is composed of mono-alkyl esters of long chain fatty acids, is derived from vegetable oils or animal fats, and meets the American Society for Testing and Materials (ASTM) specifications D6751."* To create our biodiesel, we use waste vegetable oil collected from restaurants across New England.

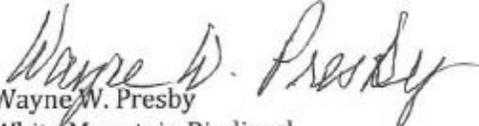
With an energy output of 127,000 BTU/gallon (#2 heating oil is 136,000 BTU/gallon), and after extensive scientific review by the US EPA, biodiesel is designated as an advanced biofuel and is the only advanced biofuel available in large commercial quantities within the United States. The EPA has concluded biodiesel reduces green house gas emissions by as much as 85%- making it the cleanest liquid fuel on the planet and unlike Ethanol there is no "blend wall". All of the major car and truck manufacturers in the US have diesel engines which can operate on blends as high as B20 which is a blend of 20% biodiesel and 80% petroleum diesel but it can be burned as home heating oil and in large industrial boilers in its pure form. And some companies including caterpillar have developed motors capable of burning it in its pure form as well. Our B20 blend is burned in the locomotives used at the Mount Washington Cog Railway.

In recent years, the New Hampshire Legislature and Executive branch have been very supportive of initiatives and legislation to promote the use of locally produced biodiesel. In 2007 a legislative commission was formed to look at the production and distribution of biodiesel. In 2016, the New Hampshire House and Senate along with former Governor Hassan passed and signed SB 386 adding the production of biodiesel into Class I of the renewable portfolio standard. Then in 2017, SB 181 was signed into law by Governor Sununu and allows large energy users to burn biodiesel in their facilities. With the passage of these pieces of legislation, New Hampshire is being seen as an innovator in the biodiesel industry and a number of large energy users have been quick to look at using biodiesel, including the state of New Hampshire's Department of Transportation.

We are firm believers in the benefits of domestically produced alternative fuels and increased biodiesel production will help lessen our dependence on foreign fossil fuels, help our environment, and stimulate our economy. Since the plant was completed in 2011, we have become the largest producer of biodiesel in New Hampshire and grown our production to over 3 million gallons. We have already completed one addition to the plant and have started our second addition. When completed, the plant will be capable of producing over 16 million gallons of biodiesel annually.

I respectfully request the Office of Strategic Initiatives include biodiesel in the state's 10 year energy plan and have attached copies of recently passed legislation, the final report generated by the Commission to Study Production and Distribution of Biodiesel in New Hampshire, a copy of an article published by the *Manchester Union Leader* discussing the use of biodiesel by the Department of Transportation, and an informational document titled *Biodiesel Handling and Use Guide: Fourth Edition* published by the National Renewable Energy Laboratory, a US Department of Energy national laboratory.

Thank you for your time and consideration and I am happy to answer any questions you may have.


Wayne W. Presby
White Mountain Biodiesel
603-991-8795
cograilway@roadrunner.com

Since the NHTOA's submission of comments for the New Hampshire Energy Strategy, I have received calls from 4 additional companies seeking to sign on in support of the NHTOA's comments.

I am forwarding (attached) a copy of a revised letter listing them as supporters.

Again, thank you for the opportunity to comment and we look forward to working with you on this issue in the future.

Jasen

Jasen Stock
Executive Director
New Hampshire Timberland Owners Association



November 2, 2017

Office of Strategic Initiatives
c/o Energy Strategy comments
107 Pleasant St.
Concord, NH 03301

via email

Re: Comments for the New Hampshire 10 year energy strategy

The NHTOA and its members appreciate the opportunity to provide input into the New Hampshire energy strategy planning process. As the Office of Strategic Initiatives continues its work on this important subject, we are looking forward to working with you.

Founded in 1911, the NHTOA represents all facets of the state's forest community including timberland owners, loggers, foresters and wood processors such as sawmills, paper mills, wood pellet manufacturers and biomass power plants. Given our diverse membership, the NHTOA has multiple interests in the plan. A marquee issue for the NHTOA is the retention and expansion of renewable energy markets that support biomass (wood chip) utilization. Also, the NHTOA's wood processing (e.g. sawmill) members have an interest in reliable and inexpensive electricity.

As part of the NHTOA's vetting/drafting process for this letter I reached out to a number of our sawmill members for their input. I am including the names of eight New Hampshire sawmills co-signing this letter in support of its recommendations to the New Hampshire energy strategy. These sawmills operate across the state milling softwood and hardwood species. They directly and indirectly employ hundreds of New Hampshire residents and contribute millions to the state's economy. All of these sawmills are large electricity consumers processing and marketing lumber into a very competitive national and international marketplace.

Biomass and renewable energy

Support policies (e.g. Renewable Portfolio Standard law) that promote fuel diversity, and the use of local and renewable fuels such as biomass.

New Hampshire has a biomass power industry that is the envy of the nation. According to the N.H. Department of Environmental Services' fuel consumption data, in 2015 New Hampshire's 8 biomass power plants consumed 2.6 million tons of low-grade wood chips. These plants are an economic engine for the state which was, in part quantified by Plymouth State University (PSU) earlier this spring when they studied the economic impact New Hampshire receives from the six independent biomass power plants. These plants consume 1.3 million tons of biomass annually. According to PSU these six independent biomass power plants annually contribute or support \$ 254,500,000 and 931 jobs to the state's economy.

54 PORTSMOUTH ST., CONCORD, NH 03301
603-224-9699 · FAX 603-225-5898 · WWW.NHTOA.ORG

Growing Leadership for New Hampshire's Forests

Moreover, the six independent biomass power plants plus Schiller Station and Burgess BioPower (which consume another 1.3 million tons of biomass) provide a critical low-grade wood market for sawmill wastes (e.g. sawdust, chipped slabs). Without a market for sawmill wastes New Hampshire's sawmill industry (which according to PSU annually contributes \$ 447,700,000 and 2,593 jobs to the state's economy) will suffer.

In addition to economic activity and jobs the low-grade wood markets New Hampshire's eight biomass power plants support is vital to timberland management and forest health in New Hampshire. By adding value to low-grade timber, land managers and owners are able to perform sustainable forest management to enhance the overall health, and value of the state's forests.

Net metering

Support policies that promote net metering.

In their September 12, 2017 testimony to the Senate Bill 125 transmission and distribution study commission the Granite State Hydro Association characterized small businesses that net meter and small renewable energy generation facilities as "load reducers". Meaning, the distributed generation net metering provides ultimately helps reduce the amount of transmission infrastructure required to bring electricity onto local grids from out of state or out-of-region sources. To the extent that net metering can help reduce peak load demand, we agree and support this concept and believe that over time reducing the need for additional transmission infrastructure is beneficial to ratepayers.

Also, policies that encourage net metering enable small businesses to manage their own electricity needs. And, in the case of wood processing facilities, this can mean the installation of on-site wood boilers to use low-grade timber or mill waste to add value to these commodities.

Electricity pricing (transmission and distribution)

Support policies that reduce New Hampshire's transmission and distribution expenses.

In their September 12, 2017 testimony to the Senate Bill 125 transmission and distribution study commission, the New Hampshire Public Utilities Commission testified on the trends in electricity pricing for New Hampshire ratepayers. Specifically, they testified that since 2005 for a typical industrial Eversource customer ("LG customer") that has switched to a competitive supplier, the energy component of their bill has decreased 46 percent while the distribution and transmission components have increased 67 and 555 percent, respectively. This trend frustrates wood processors watching biomass power plants struggle to remain financially viable as they sell their electricity into the wholesale power markets (e.g. \$0.02 - \$0.03/kWh), yet these wood processors continue to pay retail electricity rates in excess of \$0.12/kWh.

Because transmission and distribution expenses are regulated, in part, on a regional basis by the Independent System Operators of New England (ISO-NE), New Hampshire policymakers and the Governor's office will need to be creative to address this issue. Specifically, the NHTOA suggests the Governor's Office and New Hampshire policymakers seek ways to partner with adjacent states to influence the ISO-NE transmission rules to make the establishment of micro-grids within existing transmission and distribution systems more economically viable and easier,

while modifying policies to encourage more net metering and distributed generation, all efforts that should help reduce transmission and distribution costs.

Again, the NHTOA and its members appreciate the opportunity to provide input into the New Hampshire energy strategy planning process and look forward to participating in this effort as it moves forward.

Sincerely,



Jason A. Stock
Executive Director

Milan Lumber Co. LLC; Milan, N.H.

Britton Lumber Company, LLC; Bath, N.H.

Madison Lumber Mill, Inc.; West Ossipee, N.H.

King Forest Industries, Inc.; Wentworth, N.H.

HHP, Inc.; Henniker, N.H.

Durgin and Crowell Lumber Co., Inc.; Springfield, N.H.

DiPrizio Pine Sales; Middleton, N.H.

G.H. Evarts & Co., LLC; West Springfield and Grantham, N.H.

Precision Lumber, Inc.; Wentworth, N.H.

Peters Logging; Landaff, N.H.

New England Forest Products; Greenfield, N.H.

Pine Tree Lumber; Lempster, N.H.

Dear Office of Strategy...

Thank you for this opportunity to provide ideas for consideration. It is VERY critical to my small business that my home State of New Hampshire adopt a renewable energy strategy that will benefit the rate payers, municipalities, businesses of all sizes, State government, and yes, the State's utilities. These comments relate only to photovoltaics/solar, as that is my firm's specialty.

New Hampshire must:

1) adopt legislation allowing for remote or virtual net metering. For net metering to only be allowed behind-the-meter, or when the land-owner is the "host" and utilizes a "host meter" is a veiled way of restricting the adoption of net metering and makes no sense if the State truly wishes to recognize the financial and environmental benefits of solar proliferation. For example, a business in Concord should be able to be the sole net meter "customer" of a solar array that is located anywhere in NH, provided it is in the same service territory as the utility that serves the business in Concord. The reason this makes sense is that the business in Concord may not have enough land for the array where it is located, or the nearest land may not be suitably zoned. Meanwhile an industrial zoned site...for example in Manchester...may be better suited for the solar array.

2) the utilities realize significant benefits from the added distributed generation on their lines. They know it, but do not want regulators to know it. For this reason, the State needs to realize that utilities are making money by only having to compensate surplus generation at the default service rate. All net meter customers should be compensated at the "residential rate"....plus and adder for the other monetary benefits (NTAs, etc) realized by the utility.

3) enact legislation that will end the rebate and grant program. It is limiting the expansion of renewable energy generation in NH. The Federal tax credits and accelerated depreciation benefits combined with a FAIR net meter rate (i.e. the residential rate) will be enough to finance well designed and fairly priced projects. The State has already provided over-sized grants to commercial projects that did not need the grant to be financially viable.

4) enact legislation that will make the property tax on new solar generation plants fair and reasonable state-wide.

Lastly, my small NH firm has developed 10+ megawatts of solar generation development in neighboring Vermont. It is time for my home state to provide the enabling legislation for my firm to utilize the many lessons learned next door to do it right in New Hampshire.

Thank you for consideration of these ideas. I have many more ideas but not enough time to write here.

...Tom Garden
Triland Partners
44 Indian Rock Road, Suite 777
Windham, NH 03087
603-818-4186

Good afternoon Director Chicoine,

On behalf of Monadnock Paper Mills, thank you for the opportunity to provide comments on New Hampshire's current and future energy strategy, especially as it relates to the Mill's manufacturing operations. We appreciate your time and consideration of MPM's input. Please do not hesitate to contact me or Brian Maloy, the Mill's Manager of Environmental Services, should you have any questions.

Thank you very much, and enjoy your weekend.

Sincerely,

Heidi Kroll, registered lobbyist for Monadnock Paper Mills

Heidi L. Kroll
direct 603.545.3710
tel 603.228.1181
tel 800.528.1181
cell 603.496.2345
fax 603.226.3477

<http://www.gcglaw.com>

Gallagher, Callahan & Gartrell, PC
A multidisciplinary law firm
214 N. Main Street
Concord, New Hampshire 03301



Richard G. Verney
Chairman and Chief Executive Officer

Monadnock Paper Mills, Inc.
117 Antrim Road
Bennington, NH 03442-4205
www.mpm.com

Phone: 603 588 8216
Fax: 603 588 3516

rverney@mpm.com

November 3, 2017

Jared Chicoine, Director
NH Office of Strategic Initiatives
Governor Hugh J. Gallen State Office Park
Johnson Hall, 3rd Floor
107 Pleasant Street
Concord, NH 03301

RE: New Hampshire's 10 Year Energy Strategy

Dear Director Chicoine:

On behalf of Monadnock Paper Mills, Inc., thank you for the opportunity to provide comments on New Hampshire's current and future energy strategy, especially as it relates to our manufacturing operations.

By way of background, Monadnock Paper Mills (MPM) is a family owned business in Bennington, New Hampshire. It is the oldest continuously operating paper mill in the United States, dating back to 1819. The Mill provides over 140 good-paying jobs in the Monadnock Region and supports the local community in various ways, not only by paying the salaries of many of its citizens and supporting local charities, but by paying a significant amount in property taxes. In the last several years, MPM has paid over \$200,000 per year in property taxes to the town of Bennington – a substantial cost considering the high cost of doing business in New Hampshire and the significant challenges facing the paper industry.

Energy costs are a major portion of our overall expenses and have a significant impact on our ability to compete in worldwide paper product markets. MPM has made considerable investments in energy efficiency and on-site small-scale hydro generation as important parts of our efforts to manage our energy bills, stay competitive, and preserve and create jobs in Southwestern New Hampshire. Nonetheless, the Mill still purchases substantial amounts of electricity and oil in the competitive market to run our operations.

With respect to the state's energy strategy, we respectfully offer two "guiding principles" to New Hampshire's policymakers:

- preserve and enhance any and all opportunities that help the state's businesses and residents manage their energy costs and become more energy independent; and

- ensure that the state uses a fair and balanced method to evaluate proposed energy projects that allows for the development of needed infrastructure while providing for public participation.

MPM supports investing in cost-effective energy efficiency, stabilizing the Renewable Portfolio Standards (RPS) law, and encouraging distributed generation. The Mill has participated in utility-run energy efficiency programs and made our own upfront capital and ongoing investments in efficiency improvements to stay competitive. Likewise, MPM makes ongoing investments in operating, maintaining and upgrading our small-scale hydroelectric facilities. For the state as a whole, RPS provides many benefits including fuel diversity, more stable prices, local investment, and the retention of *existing* renewable generation that is already sited. For distributed generation owners like the Mill, the RPS program is a component of our strategy to address our energy-cost burden, provide good-paying jobs, make local investments, and stay competitive. The program provides the opportunity to earn modest revenues from selling Renewable Energy Certificates (RECs) associated with the energy that our hydro facilities produce. REC revenue is an important income stream that helps cover the facilities' costs, which can be substantial. Every year there are significant state and federal regulatory costs and maintenance expenses associated with the facilities' environmentally-compliant and safe operations.¹ In addition to these annual costs, MPM recently went through an arduous and very expensive hydro relicensing process that took seven years and an enormous amount of financial and human resources. Businesses need legislative and regulatory certainty and stability, and that holds true for RPS. We strongly encourage policymakers not to take any steps that would undermine the opportunities that the RPS program provides for New Hampshire consumers to manage their high energy costs.

As stated above, the Mill purchases substantial amounts of electricity and oil in the competitive market to run our operations. Many experts agree that more energy infrastructure is needed throughout New England, especially with a growing list of power plant retirements and a growing reliance on natural gas for electric generation and heat. MPM followed the Site Evaluation Committee (SEC) rulemaking process and filed two letters during public input opportunities. The Mill remains concerned that provisions in the final SEC rules are being used to erect substantial hurdles to the development of proposed energy projects rather than to objectively evaluate them. Energy consumers cannot afford a siting process that makes it too difficult, too expensive, and perhaps even impossible to build new energy infrastructure that is needed as part of an "all of the above" energy strategy. Policymakers should make sure that the state does not earn a reputation of being "closed for business" when it comes to siting new energy projects.

Monadnock Paper Mills greatly appreciates your time and consideration of these comments and would be happy to answer any questions or provide further information. Thank you very much.

Sincerely,



Richard G. Verney
Chairman and CEO

¹ One of the many benefits of MPM using existing dams to produce power is that it increases public safety for Bemington and towns downstream of the Mill because MPM maintains the dam infrastructure and regularly monitors water-flows, at no cost to taxpayers.



November 3, 2017

Jared Chicoine, Director
New Hampshire Office of Strategic Initiatives
Pleasant Street
Concord, NH 03301

RE: Comments on 10-year state energy strategy

Dear Director Chicoine,

Thank you for this opportunity to provide written comments regarding potential updates to the 10-Year State Energy Strategy. In 2013, The Nature Conservancy and the Clean Tech Council participated in the effort to develop and pass SB 191, the bi-partisan legislation that established the process to create and update a 10-year state energy strategy. Because of energy's impact on all facets of our lives and economy, we believe that it is vitally important for the state of New Hampshire to maintain a comprehensive and clearly articulated strategy to guide our energy policies.

The focus of New Hampshire's energy strategy should be to support the transition to a clean energy economy that ensures access to clean, reliable, affordable energy for all ratepayers. Clean energy resources lead to lower emissions, increased consumer choice, and create jobs in New Hampshire. Our state is poised to be a leader in this new energy economy, but only if we make and maintain a solid commitment that supports investment in energy efficiency and renewable energy resources.

The profound changes underway in our energy economy are already taking hold. Renewables are cost competitive with fossil fuels, in many cases. The economy is responding to this trend – the solar workforce nationally grew by 25% in 2016 alone, and wind employment grew by over 30 percent over the same period. According to the Bureau of Labor Statistics, solar installers and wind turbine service technicians top the list of fastest growing occupations (change of employment between 2016-2026).⁴ It is important that New Hampshire participates in the growth of the clean tech sector – but it will not happen unless the state develops a strategy that will bring investment and the workforce needed to meet the growing demand.

With the rapid growth of the energy efficiency sector, we are also seeing the “decoupling” of economic growth and energy use. Over the past 10 years, the US economy has grown by 10 percent, yet its energy

⁴ www.bls.gov

consumption has fallen by 2.4 percent. In New England, the story is even more pronounced, with the state GDP growing 9.7 percent from 2005-2016, while energy use fell by 9.6%,² saving New Hampshire consumers and businesses money, while decreasing harmful emissions. We do not have to increase energy use in order to grow our economy.

Sensible, Consistent, Long-Term Energy Policies

New Hampshire needs energy policies that will continue to strengthen our State's economy and support the growing use of clean energy technologies. We understand that no one organization or sector has all the answers on how best to develop clean energy resources. That is why our organizations have been working to directly engage the business community and municipal governments to foster a better understanding of the type of policy approaches that will help ratepayers lower their energy bills; ensure more reliable and affordable energy; and secure the ability of all Granite Staters to make the energy choices that are right for them.

Over the past 18 months, we have engaged stakeholders in seven regional "listening sessions" where we heard about the challenges and opportunities businesses and local governments faced when making investment decisions around clean energy technologies. In total, we brought together more than 200 business, municipal and political leaders to begin identifying policy approaches that can advance the deployment of clean energy, grow our economy and protect ratepayers.

Three themes emerged from these listening sessions for developing the next generation of state policy:

- **Leverage private investment:** New Hampshire cannot rely upon public dollars alone to transform how energy is generated and consumed. Private financing is essential in developing a clean tech sector that is creating and growing jobs while promoting and developing new technologies that lower demand. Our neighboring states are advancing policies that are attracting this private capital. New Hampshire should be developing a strategy to compete for this private capital, better leverage the limited public dollars available, and ensure that investments are meeting clearly defined goals.
- **Modernizing our energy infrastructure:** As consumers are offered new technologies - from smart thermostats to solar panels to electric vehicles and energy storage- their choices will be dependent on how the grid is able to perform and adapt to the changing energy landscape. New Hampshire needs to make sure that we are able to take advantage of the benefits associated with distributed energy by ensuring all our resources can safely and efficiently plug into the grid.
- **Develop and maintain a robust workforce:** New Hampshire needs to develop strategies to create jobs and populate a growing clean tech industry. The challenge for workforce development in clean tech is unlikely to be the availability of jobs, but rather, insuring that a

² Source U.S. Energy Information Administration and U.S. Department of Commerce – Bureau of Economic Analysis.

sufficient and trained workforce is available as New Hampshire capitalizes on its clean energy and clean tech goals.

This past summer, The Nature Conservancy and The Clean Tech Council retained UNH professor and clean tech innovator Dr. Clay Mitchell to develop brief policy whitepapers on each of the topics identified in the listening sessions.

Beginning in September, Dr. Mitchell facilitated work sessions focusing on each of the whitepapers attended by diverse group of stakeholders representing government, business, municipal and the non-profit sector. In total, more than 80 individuals provided feedback on the policy recommendations contained in the three whitepapers. The final work session was held in Concord on October 26th.

Because we are still in the process of editing and producing a final set of recommendations following the three stakeholder work sessions, we have included the DRAFT white papers to this letter. Our goal is to have a final set of clean energy policy recommendations that has the support of New Hampshire businesses, clean energy stakeholders and elected officials from both political parties so that together, we can implement an energy strategy that delivers economic and environmental results for New Hampshire.

We look forward to sharing the final policy recommendations with you later this fall when our process is complete. In the meantime, please do not hesitate to be in touch with any questions.

Sincerely,



Jim O'Brien
Director of External Affairs
The Nature Conservancy in New Hampshire
22 Bridge Street, 4th Floor
Concord, NH 03301
jim_obrien@tnc.org
603.224.5853



Michael Behrman
Director
New Hampshire Clean Tech Council
14 Dixon Ave
Concord, NH 03301
michael@nhcleantechcouncil.org
603.226.4732



Introduction

This is the first in a series of papers that explores policy approaches to build a clean, reliable, affordable energy future for New Hampshire and support growth of the clean energy economy. The goal of these papers is to promote a discussion about public policy that can be tailored to promote economic expansion of the sector through investment and workforce development and can be applied across sectors to benefit New Hampshire businesses and ratepayers. This first paper examines investment tools and opportunities, the second describes how public policy can impact infrastructure development and deployment (the products of clean energy such as energy storage and other opportunities), and the third paper looks at workforce development and support. The series examines the role of public policy in supporting the flow of financing into a developing sector that is creating growing numbers of jobs and new technologies that are part of a cleaner energy future.

Public Policy and Clean Energy Funding Sources

In this section, we describe current programs and policies in New Hampshire that relate to investment in clean energy. Highlights include program features, opportunities and challenges associated with each policy. Finally, we offer several questions to generate discussion about how these programs can be improved or changed to promote greater investment in a clean energy economy for New Hampshire.

System Benefits Charge ("SBC") / Energy Efficiency Resource Standard ("EERS")

The system benefits charge is authorized under RSA 374-F:3(VI) to "be used to fund public benefits related to the provision of electricity...". These funds support the new EERS program administered by the NH utilities and overseen by the Public Utilities Commission ("PUC").

Program features of the System Benefits Charge:

- o All funds from the SBC are currently directed to utility programs for EE, low income fuel assistance programs and to offset lost base revenue for the utilities.
- o There is no history of using SBC funds for R & D outside EE programs despite the statutory authorization for such a use.
- o SBC charges are the focal point for opponents to these programs, as indicated by HB 317 (2016) which was introduced to limit the PUC's authority to raise the charge without legislative approval.

The Energy Efficiency Resource Standard (EERS) is the latest iteration of New Hampshire energy efficiency policy. The EERS was established by the PUC through a series of extensive stakeholder processes beginning in 2014. The EERS sets mandatory long-term energy savings targets for electric and gas utilities, and, beginning in 2017, expands funding and program options for the existing utility-administered CORE programs. The EERS functions as a market pull policy by supplying rebates for energy efficiency projects to achieve all cost-effective energy efficiency as a resource for the state.

Opportunities

- The economic savings from energy efficiency accrue over the lifespan of the efficiency upgrade and are often the first and most cost-effective clean energy effort.
- The opportunity for effective partnerships exist with respect to expertise in technology and finance with the utilities and the professional clean energy sector.
- The EERS program can provide a wide range of prescriptive as well as innovative measures if balanced right for both technology push as well as market pull objectives.

Challenges

- Despite the wealth of knowledge regarding the economic, social, and environmental benefits of energy efficiency, the EERS program can also experience political instability. (See above regarding HB 317).
- EERS programs are finite and funds for previous CORE efficiency programs were regularly depleted.
- Much of New Hampshire is unaware of the existence of energy efficiency programs.
- EERS programs, while successful at leveraging private investment, do not generally do enough to leverage private financing of energy efficiency.

Policy Considerations:

- Should the EERS program focus on leveraging private financing of energy efficiency as part of its programs?
- Would the EERS program and goals benefit from a separate, supplemental focus on cultivating private finance for energy efficiency?
- Should the EERS program be managed by the utilities?

Regional Greenhouse Gas Initiative

The Regional Greenhouse Gas Initiative (RGGI) is a multi-state program structured to reduce greenhouse gas emissions in the power sector through a trading allowance program. The RGGI program itself hosts the market for allowances and distributes the allowances to the states. It is up to the states to determine the use of these funds from the sale of allowances for programs to stimulate investment or other purposes.

Opportunities:

- The RGGI program has been successful in terms of emission reductions.
- Funding from the sale of RGGI allowances has fluctuated in the past but program design has been implemented to provide a greater level of stability.

Challenges:

- NH's use of RGGI funds came under scrutiny for granting funds to individual projects and programs where no repayment obligations were attached to the funds.
- RGGI is also a focus for legislative action by opponents to these programs.
- Currently, all funds in excess of the first \$1 from each allowance sold are rebated to customers.
- Opponents to RGGI annually propose legislation to withdraw from RGGI (such a bill is retained in the 2017 session, See HB 592).

RGGI Policy Considerations:

- Should RGGI funding be re-examined for other efficiency program support instead of minimal bill rebates for electric customers?

Net Metering

Net metering is a policy that permits the owners of renewable distributed generation (primarily solar) to receive a bill credit for the energy produced in excess of their use. The critical question is the level of the credit and its value. The new net metering program cannot be evaluated with any certainty since it was only recently adopted, but several aspects appear to indicate greater long-term stability and may result a solid foundation for stable demand in distributed generation. In several cases during the proceeding and in the result, investor certainty and long-term stability were referenced as an over-arching goal.

Opportunities:

- Net metering provides a stable rate for energy produced which results in assured performance and increased financing opportunities.
- The legislative cap on statewide installed capacity was eliminated.
- A reduction for small systems in the distribution credit attempts to balance utility concerns regarding lost revenue.

Challenges:

- Opponents to clean energy annually submit legislation to modify net metering.
- The new study for a next-generation net metering program (approved as part of the PUC proceeding) must be monitored for a fair examination of the value of distributed energy resources.

Investment in Clean Tech / Clean Energy

Policy Considerations:

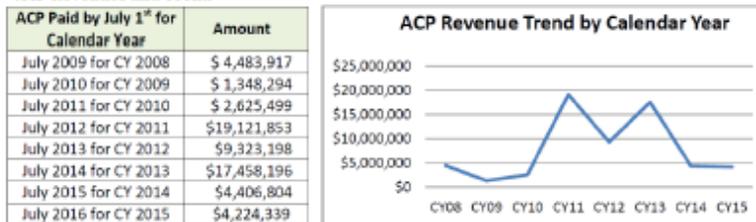
- Given the recentness of these changes, is the prudent approach to net metering to work within the framework laid out by the PUC in their order?

Renewable Portfolio Standard

The renewable portfolio standard (RPS) operates as a market pull policy by generating demand for renewable energy systems. It is both a policy and a source of funds. Demand for clean energy is set through mandatory targets (either as percentage of sales or as capacity) for renewable energy generation (classes). When utilities cannot meet obligations under the RPS through generation or renewable energy certificates (RECs), funds are collected as part of an alternative compliance payment option. Revenue from these payments is placed into a dedicated fund that supplies rebates for renewable energy systems. NH rebates have leveraged significant private capital for investment at an estimated rate of 1:5.¹

Selected statistics related to RPS revenues and expenses are provided to illustrate the fluctuations and the flow of capital into the dedicated renewable energy fund (REF).

ACP Revenues and Trend



RPS Retrospective, page 14

Opportunities:

- Policies that are considered market-based approaches and can generate bipartisan support over command and control policies.
- RPS targets manage demand and insure a long-term pathway for a number of technologies.
- Acceptance of new and diverse technologies within an RPS can enhance technology push approaches for investment (such as energy storage).

Challenges:

- The RPS targets for specific classes of clean energy have been modified many times over the years, often driven by reasons beyond the goal of clean energy.
- REC markets and ACP funds are difficult to predict year over year and are impacted by market forces beyond the State's control (e.g. REC prices in and sales from other states) which affects project financing.
- Legislative and executive branch budget writers have raided the dedicated REF fund for other purposes (the general fund, homeland security, etc), this and other legislative efforts

¹ (See generally, NH PUC RPS Reports, NH RPS Retrospective 2007-2015).

Investment in Clean Tech / Clean Energy

to modify and repeal the RPS creates a perception of political instability for sources of finance.

- Leveraging private capital is usually left to project developers and not a programmatic element of the RPS.

Policy Considerations:

- Is it better to have higher individual rebate amounts regardless of REF deposits or is broader access to rebates more important (where rebates would be set in line with projected installations for the budget year)?
- Is there an opportunity to create a more frequent and automated evaluation process with triggering mechanisms to more efficiently set the rebate amount each year to preserve the fund?
 - What does this monitoring and modification process look like?
- Is there an opportunity or need to link the rebates with leverage opportunities?
 - Could the rebate be assigned to qualified lending institutions as part of securing 100% on project costs? (This would be similar to the Section 1603 Tax Grant Program from ARRA which allowed the assignment of the grant to financing institutions as part of loan down payments)
- Is there an interest in changing the financial incentive structure to something other than a rebate or grant?
 - Could funds be used as part of leverage or credit enhancement for financing system costs?

Investments in Clean Energy

Public Funds

Clean energy investment finance from public sources is generally comprised of state and federal programs. The use of federal public funds reached its peak during the ARRA period and has fallen steadily since. Tax incentives for clean energy are scheduled to decline and in some cases phase out completely.² The timing and need for state action is now more critical than ever. We approach this effort with the assumption that federal support for clean energy will continue to decline and that states are more appropriate vehicles for public policy efforts related to clean energy. States are the primary regulators for energy markets and policies. States also are closer to the industries within the region and local economic development opportunities. Furthermore, most states, New Hampshire included, have already experimented with creative financing institutions and the theory of states as “laboratories” provides a unique pool of efforts to achieve the goals of enhanced financing.

² The wind PTC ramps down from the current amount to 0 at the end of 2019. The Solar ITC remains until 2019 and phases to 10% for commercial/utility scale and to 0% for residential at the end of 2021.

New Hampshire's current investment efforts in clean energy are characterized primarily by rebate programs and limited involvement in leveraged financing with private capital. The State's primary focus is on providing prescriptive rebate programs, whether through utilities or state managed programs. These programs limit innovation (through their prescriptive nature) but can enhance investment from private sources by reducing costs for projects.

A focus on financing structures that leverage limited public funds with private capital will provide a greater impact for clean energy. The current risk-reward equation for private capital sources is seen as a high-risk, low-reward balance. This view of the New Hampshire market limits opportunity for meaningful private capital investment in the clean energy sector. Disparate policies without a unified approach to financing contribute to this loss of opportunity.

Lending Institutions & Debt Financing

Standard debt financing takes many forms and is well-beyond the scope of this paper. Traditional lending structures seek to minimize risk or price that risk in the cost of capital. The key components of understanding challenges with conventional debt financing and its role in clean energy investments are as follows:

- Lack of technical knowledge and familiarity with clean energy projects and technologies result in perceptions of risk and concerns related to performance.
- Long-term financing for businesses and home owners are limited by credit risk, debt to income levels and other financial considerations.
- Most projects at the residential and small commercial scale are below typical loan amounts.
- Underwriting and due diligence processes can result in high transaction costs for clean energy projects.

Debt financing from lending institutions are an important part of the investing equation. In NH, debt financing has primarily been the responsibility of project proponents. The shift toward programs that incorporate debt financing can assist in the leveraging of private capital through public funds, which is a theme discussed below within the existing programs as well as part of additional policy considerations at the end of the paper.

Venture Capital

Venture capital ("VC") funding is private investment in startup companies and smaller businesses where the investor sees opportunity for high returns. These investments are usually characterized by higher risk in the hopes of higher returns. Companies seeking VC funds usually have limited profits, are pre-market and may not have an extensive history in their operations. These characteristics make traditional capital markets difficult to access. Investors are usually high wealth individuals or VC funds.

In recent years, the flow of VC funds into the cleantech and clean energy sectors has gyrated significantly. In 2008 total VC investments reached 5 billion. By 2014, this investment had dropped to 2 billion, where it remains today. A recent MIT study found that while new

companies in the segment can produce safe investments, the chances of the traditional tech type of returns are significantly lower.³ It is important for the clean energy sector to recognize this and for policy makers to respond accordingly. Policies driving investment in clean energy in New Hampshire focus on rebates for projects and include very little business development support.

Tailoring policy and new finance vehicles to the industry requires more support from patient investors to match the services and products in the industry that is ripe for growth and innovation. Public policy considerations should be made without an eye toward VC funding due to the apparent lower returns in clean energy.

Clean Energy Finance Authority

A clean energy finance authority is an initiative that leverages limited public capital to reduce risk on investments as a goal to attract private capital. This approach has been the focus of research and enthusiasm among policy makers and industry leaders. A recent study completed by the Union of Concerned Scientists has suggested - based on existing programs in the US - that an initial capitalization of \$14 million could leverage up to \$300 million in investment over the next 15 years in NH.⁴

The benefits of these authorities include diverse programs, diverse sector support, the ability to focus on both technology push as well as market pull support. In states that adopt these programs, the focus moves from government and ratepayer funded rebates to leveraging private capital. This transition and the authority's status⁵ would help alleviate the political instability currently plaguing the expansion of NH's clean energy economy.

The concept of attracting private capital is well known but not well implemented. The PUC in its Order approving the EERS noted this fundamental position:

"Staff recommended exploring and developing private funding options, which could include loan portfolio sales and asset-backed securitization. According to Staff, private funding supplementation is necessary to achieve all cost-effective energy efficiency, but requires market growth, as well as stability and benefits from standardization of products, processes, and the availability of accurate risk and performance data."⁶

If implemented carefully, the creation of a clean energy finance authority would leverage private funds, could be insulated from political instability and change the balance in the risk-reward equation and drive private capital into the clean energy economy.

³ Venture Capital and Cleantech: The Wrong Model for Clean Energy Innovation. An MIT Energy Initiative Working Paper. July 2016. <https://energy.mit.edu/wp-content/uploads/2016/07/MITEI-WP-2016-06.pdf>

⁴ The UCS report used per capita comparisons from existing CEFA programs to arrive at these numbers and the leveraging rates for these programs in reaching these conclusions.

⁵ This status is often recommended as a quasi-state chartered authority with some political independence.

⁶ NH PUC Order No. 25,932, EERS Order Approving Settlement. Pg. 17. 2016

Opportunities:

- NH already receives millions of dollars related to clean energy investment.⁷
- There is growing recognition by the utilities, the government and the industry that private capital is a critical part of meaningful clean energy investment.
- There are growing examples of successful efforts in Connecticut, New York and Rhode Island.
- There are several successful existing models in NH that prove the success of financing in the clean energy sector and more being explored in newer programs.
- The transition from government incentives to public-private leveraged financing can promote political stability.

Challenges:

- Programs that are to be housed in one authority rather than spread across multiple programs may impact existing programs and policies.
- The structure of the authority must be carefully considered to minimize political instability but protect the use of public funds.

Policy Considerations:

- Is New Hampshire ready for a clean energy finance authority?
- What is the appropriate structure of such a finance authority?
- Who should be involved in the creation of a new clean energy finance authority?
 - E.g. Office of Strategic Initiatives, Division of Economic Development, Public Utilities Commission, CDFA, Business Finance Authority.
- How much should the initial capitalization be and from what source(s)?
- How do we minimize the negative impacts to existing programs with this transfer of capital to the new authority?

Evaluating our existing programs and considering new programs that can leverage private capital with public funds should be done to know if NH is on a path to remain competitive in a region where neighboring states are successfully growing their clean energy economy.

⁷ See appendix for annual amounts of clean energy funds from the RPS, RGGI and the SBC.



Introduction

This is the second in a series of policy papers that explores the role of public policy and support for a clean, affordable, reliable energy economy. . In this paper, we explore the development of energy infrastructure in the context of the traditional policy mechanisms. The subject of infrastructure development and deployment is a key driver of efforts by utilities and the private sector to provide and support a cost-effective, reliable and resilient energy system.

When designing electricity infrastructure for the 21st century, we need to think beyond traditional hard infrastructure of poles, wires, and substations. Energy infrastructure should harness the power of data driven optimization and Internet-of-Things communication across the network of distributed smart grid devices. Modern energy infrastructure will effectively capture the value of clean and distributed energy resources, from storage, to electric vehicle charging infrastructure, to demand response, and harmonize the resources to save costs for all consumers.

While private sector entities have important roles, a primary consideration for infrastructure deployment is the role of the utility. The utility's responsibility for managing the grid cannot be understated, but certain components of the traditional utility business model remain obstacles to deployment of 21st century energy infrastructure. These obstacles must be addressed in order to enlist the utility as an active participant in any successful path forward. This includes an honest discussion about cost recovery and new opportunities for the utility to be compensated fairly for services provided as part of a newer cleaner energy infrastructure.

This paper does not address the question of larger transmission projects. This issue is beyond the scope of this effort and embroiled in separate proceedings. At some point it may be ripe for discussion in a separate effort. This paper is about innovative policies and strategies for a cleaner energy future in New Hampshire – looking forward.

Public Policy and Infrastructure Planning and Development.

Least Cost Integrated Resource Planning ("LCIRP")

New Hampshire uses LCIRP as a planning tool for utilities. (NH RSA 378:37-40). These plans are filed within 2 years of the approval of the previous year's plan approval (or within five years of the previous filing). The most recent Unitil and Eversource LCIRPs were reviewed in 2016 and 2015 respectively. The plans themselves are required to be submitted within the context of NH RSA 378:37 New Hampshire Energy Policy:

"The general court declares that it shall be the energy policy of this state to meet the energy needs of the citizens and businesses of the state at the lowest reasonable cost while providing for the reliability and diversity of energy sources; to maximize the use of cost effective energy efficiency and other demand side resources; and to protect the safety and health of the citizens, the physical environment of the state, and the future supplies of resources, with consideration of the financial stability of the state's utilities."

Program features of Least Cost Integrated Resource Plan

The content of the plans includes the following assessments and their impact on the utility's plans:

- Demand-side energy management programs, including conservation, efficiency, and load management programs.
- Supply options including owned capacity, market procurements, renewable energy, and distributed energy resources.
- Distribution and transmission requirements, including an assessment of the benefits and costs of "smart grid" technologies, and the institution or extension of electric utility programs designed to ensure a more reliable and resilient grid to prevent or minimize power outages, including but not limited to, infrastructure automation and technologies.
- Compliance with applicable environmental law.
- Long- and short-term environmental, economic, and energy price and supply impact on the state.
- Integration and consistency with the state energy strategy under RSA 4-E:1.

Opportunities

- The LCIRP process provides a unique insight into the long-term investment and infrastructure plans for utilities and the challenges they face when planning for investment. This insight can inform businesses and technology development that meets these challenges.
- Increased involvement in LCIRP could enhance the effectiveness of the process and help to create a more two-way dialogue regarding utility goals and how private investment can meet these infrastructure needs.

Public Policy and Modern Energy Infrastructure

- A more progressive examination of the benefits of distributed generation, storage technologies and smart grid applications can provide investment opportunities to the utilities and joint efforts between utilities and businesses.

Challenges

- There is limited involvement in these proceedings other than staff, the utility and the Office of Consumer Advocate (“OCA”) in the most recent filing for Unital (DE 16-463) and only the OCA and NH Office of Energy and Planning in the most recent Eversource filing (DE 15-248).
- Utilities have not been willing to include DER in projections due to their concerns over assurances for coincident peak production and intermittency.
- There is an obvious overlap between grid modernization and LCIRP but it has yet to be integrated due in part to the recent amendments to the statute which now require such an assessment to take place.

Policy Considerations

- Could LCIRP be undertaken within a more “global” consideration of other infrastructure efforts (storage and smart grid) to insure these efforts are working together rather than being forced into silos in separate processes?
- Could the LCIRP process consider this integration of smart grid technologies (see below) and other infrastructure and provide for the opportunity for expanded revenues and cost recovery for utilities and expanded opportunities for economic expansion for clean energy companies providing these services?

Grid Modernization

In March of 2017, the Commission published the NH Grid Modernization Working Group Final Report, the product of an extensive stakeholder process convened among utilities and the growing cohort of smart grid market actors and advocates. The report outlines a series of recommendations covering smart metering infrastructure, time-variant rate design, customer and utility data, and reforms to the utility business model. Unfortunately, the report leaves no clear path forward on grid modernization. The report is also replete with conflicting recommendations, highlighting the discord between utility viewpoints and the viewpoints of those advocating for competitive integration of 21st century technologies.

At its core, grid modernization is about value-based integration of distributed energy resources, from distributed solar and storage, to smart appliances, to data-driven communication and control systems harmonizing these resources. A modern grid will create space for competitive market actors to make investments in electric grid infrastructure that help maximize efficiency and minimize costs.

Public Policy and Modern Energy Infrastructure

Program features of Grid Modernization

- The stakeholder report exists but no PUC order has been released on the subject creating some confusion on the path forward.
- Retained HB 401 – this bill was originally intended to be coincident with the PUC Order on grid modernization and meant to reflect the necessary legislative push for action. Without an order, the bill has not changed and includes only placeholder language on time varying rates, which is a very small component of smart grid options and objectives.

Opportunities

- Time Variant Rates are a core component of a modern grid. More accurate price signals can inform smart appliances and storage to maximize their value.
- Smart meters can enable customer participation in time-variant rate options, allowing them to save on monthly bills and reduce overall system costs.
- A modern grid will be informed by data. As a result of the recent Net Metering Order issued by the Commission (Order No. 26,029), in October the Commission will begin convening Work Groups to address the collection and dissemination of electric system data to inform to valuation of distributed energy resources.

Challenges

- Utilities are unlikely to invest in grid modernization because, even though it may be the cheapest, most efficient option for electric system planning, it may be counter to their financial wellbeing (Lawrence Berkeley National Laboratory, 2017). Traditional utility incentives to embrace demand growth, maximize volumetric sales, and make large capital expenditures on traditional infrastructure remain barriers to smart grid deployment.
- Smart grid software, automation, and controls raise questions about cyber security and privacy. These concerns must be addressed as part of the policy process and several states and advocacy groups are competently working on these issues and their research can be integrated into New Hampshire's policy.

Policy Considerations

- Could grid modernization and related policies be used to enhance non-wire alternatives to transmission and distribution investments in a way that does not impact utility revenues and returns?
 - If there is a potential impact, could revised mechanisms for cost recovery be implemented as part of grid modernization?
- Would grid modernization infrastructure provide a more comprehensive examination of options for grid planning and responses to utility concerns expressed in current LCIRP filings (such as discounting distributed generation output, coincident peak timing for distributed generation and circuit loads)?

Energy Storage (at all scales)

New Hampshire lacks any meaningful policy for deployment of storage infrastructure. This is not surprising given the relatively recent explosion in technology and that most state efforts in the past have primarily focused on alleviating congestion – which is a probably NH does not readily experience. That said, the rapid decline in costs and the increased recognition of storage as an infrastructure mechanism to address more than just congestion has changed the field. Many states have initiated storage policies to explore the costs and benefits of a robust storage policy and most of these states are finding the benefits will easily outweigh the costs.

Within our region, New York and Massachusetts have initiated robust efforts to support the deployment of storage to provide the host of advantages available. Regionally, these efforts can provide a hub of economic activity and innovation in this developing field. The Massachusetts approach began its approach with an honest assessment of the state of the technology and the amount of storage that could be deployed that maximizes the benefits to rate payers.

Program features of Storage Infrastructure

Although we currently have no policies for the deployment of storage there are several mechanisms that can jumpstart deployment of this infrastructure and take advantage of the coincident benefits provided by similar actions of our neighboring states. It is important to use existing experience to develop a staged approach to storage.

- Initial deployment (demonstration stage): grants and rebates.
- Pilot projects for municipalities and institutions: critical loads and places of refuge.
- Optional policy mechanisms:
 - Include storage in the renewable portfolio standards.
 - Establish a new regulatory treatment for utility storage such as available in NH RSA 374-G where it is already permitted to be developed and invested in by utilities (as well as cost recovery and an optional incentive on the return on equity).
- Work with neighboring states and ISO-NE to develop stable markets for storage deployment and remove participation barriers.

Opportunities

- Annual Peak Reduction: Storage capacity can reduce these peaks and lower wholesale power costs for energy suppliers – lowering costs to all. (Massachusetts found that the top 1% of hours equaled 8% of total electrical costs and the top 10% equaled 40% of total costs).
- Economic Development: Technology hubs for innovation, business development, manufacturing and jobs across the spectrum.

Public Policy and Modern Energy Infrastructure

- **Integration of Renewables:** Reduces the impact of intermittent output and allows for balanced output and greater benefits of renewables to provide benefits in LCIRP, smart grid evolution, reduce impacts of over generation during peak output periods and permit greater expansion of distributed generation beyond current levels.
- **Grid resilience:** Can be integrated into micro-grids to protect critical loads, minimize widespread outages and balance distribution networks in times of outages.
- **Additional benefits:** storage can be used to support voltage and frequency correction and can be a critical enabler of grid modernization goals and technologies.

Challenges

- Currently, there is no policy in New Hampshire addressing the deployment of storage at any level.
- Policy development is complicated and will require a broad coalition of industry, policy makers and advocates to build a collaborative solution.
- Markets for storage are undeveloped in the state and in ISO-NE but can be impacted by a multi-state partnership working together to insure the development for such services under existing FERC Orders. Creating new markets to permit developers to receive a portion of system benefits will support project development.

Policy Considerations

- Should New Hampshire act early to avoid being late to the table in the terms of economic development or should there be a brief delay while other state policies play out to observe lessons learned in such policies?
- Should storage policies be deployed along with recent action in grid modernization and new net metering efforts to provide a more robust and comprehensive solution to a modern clean energy grid and economy?
- Should Policy choices reflect and pursue the potential for storage to shave peaks, reduce annual costs, and provide ancillary services throughout the year and attempt to capture these benefits immediately?
- Should New Hampshire complete its own study of the benefits of storage technologies as part of a policy consideration?

Electric Vehicle Charging Infrastructure

Electric vehicles (EV) have grown 10 fold in . Penetration of EV into the automobile market represents new demand for electricity and opportunities for investment in charging infrastructure as well as smart grid features and benefits. Immediate benefits of EV charging expansion could help with load smoothing by focusing on the timing for charge operations. Long-range integration planning can include future benefits from greater penetration. EVs could provide mobile storage opportunities and provide congestion mitigation for key locations, aggregation of EVs could participate with capacity service providers and provide blocks of capacity into markets and with the

Public Policy and Modern Energy Infrastructure

integration of advanced smart grid infrastructure could also provide grid service support.

Program features of Electric Vehicle Charging Infrastructure

- New Hampshire has very limited existing policy structures for the deployment of charging infrastructure.
- Granite State Clean Cities has some support for EVs but that is very limited and does not amount to statewide policy. Their expertise would work well as a stakeholder in the deployment of the infrastructure.
- The NH DES has proposed in the draft agreement the use of up to 15% of the VW settlement for the deployment of electric vehicle charging stations. The total amount available for this would be \$4,431,644.66 (15% of the total settlement allocation to NH).

Opportunities

- EVs connected to advanced charging infrastructure can provide grid services and benefits since they are effectively used for only a portion of the day and can provide two-way flow of energy.
- Charging facilities that are used at optimal times can provide load smoothing by timing charging at night to balance loads and reduce peak demands by not charging or actively by releasing power at key peak times. This is enhanced by smart grid technologies and time varying rates.
- Utility-owned facilities can provide new investment and revenue opportunities to the utility, tap into capital often limited in the public sector and can benefit from the utility administrative services such as billing.
 - Utility-owned and deployed infrastructure will also be able to maximize grid benefits due to the direct knowledge regarding pricing, grid demand and other technical barriers for third-party owners of charging facilities.
- Policies regarding the deployment of charging infrastructure should include a broad range of transportation experts and planners to insure that infrastructure is used to its maximum potential. This expertise is available in New Hampshire and can facilitate this effort.

Challenges

- Deploying EV charging infrastructure in ways to maximize these benefits can complicate the process.
- There is strong competition for development of charging stations and limited coherent policy at the federal and state level.
- Cost and reimbursement policies will complicate the deployment of charging infrastructure by utilities.

Policy Considerations

- How can effective policies should be designed to limit negative grid impacts?
- What policy designs should be implemented to realize all grid benefits thereby creating a benefit to utilities and thus lower costs to owners and even realize benefits to ratepayers?
 - Are there other examples from other states that should be considered for New Hampshire policy?

DRAFT



Introduction

The third pillar in our discussion regarding New Hampshire's energy future is workforce. To date, we have discussed public policy impacts on investment and modern energy infrastructure. The goal of this effort is to realize the potential of a modern energy future for New Hampshire. The final instrument of success is developing and maintaining a robust workforce to populate a growing clean tech industry. New Hampshire workforce challenges are well known and broadly discussed. A review of the broad issues and the public policy efforts is the first step in generating a more specific discussion about how we can insure that the clean energy sector can sustainably expand in NH.

Growth in major job segments of the clean tech sector has exceeded 25% over the last year. Predictions suggest a tripling of available work opportunities by 2030 for jobs in the solar industry, alone. The challenge for workforce development in clean energy is not the availability of jobs. The challenge will be insuring that a sufficient workforce is available as New Hampshire capitalizes on its clean energy & clean tech goals.

New Hampshire has a low unemployment rate. Coupled with an aging population, workforce advocates are active in education and developing a wide range of solutions across the state. This paper examines, and is limited to, public policy tools that can connect and enhance these existing efforts developed by partners in the issue.¹

In general, the major approach to workforce development can be understood in the context of two broad approaches, retention and recruitment. Retention focuses on keeping existing members of the workforce in the state. The targets of these efforts are in-state residents who are workers seeking job expansion or diversification, existing workers changing professions and graduating students. Recruitment involves outreach and marketing in other states for workforce needs in an industry.

The challenge that confronts workforce development is complicated by New Hampshire demographics and competition in other markets. An aging population

¹ There are a number of institutional, public and non-profit entities working on this topic and listing them individually is beyond the scope of this paper.

Workforce Development & NH's Energy Future

and ancillary issues related to affordable housing, transportation and education all create a complicated landscape of issues that must be considered together by an emerging partnership among business, education, government and non-profit partners. The clean tech sector, as an emerging industry, will need to work within existing efforts.

Public Policy and Clean Energy Workforce

Success in public policy centers on integration and coordination with existing workforce efforts. There are a number of efforts throughout the state that target workforce development. Duplicating efforts without effective collaboration will dilute the success of policy efforts. Some of the policy issues described below are described by topic given the disparate policies and partners. These descriptions are based upon the target population or the goal instead of specific program itself since there may be no single specific public policy that can be identified.

Retaining Graduates: Increase Collaboration with NH Educational Institutions

The University System of NH and the Community College System of NH ("CCSNH") are the state's higher education public institutions. Dartmouth College and Southern NH University are significant private higher education institutions.

Program Features

A collaborative approach to workforce building between industry, institution and government will generate success. There are many smaller efforts and targeted programs that reflect this collaboration. Expanding on these successes will be paramount for New Hampshire's long-term workforce development success.

Opportunities

- Existing partnerships can be enhanced with minimal expense.
- State education institutions have career infrastructure in place that can be enhanced with more stable and effective links to industry and workforce development partners.
- The Governor's Millennial Advisory Council is a new partner with a specific goal to address workplace retention.

Challenges

- Collaboration with private institutions may require new efforts to coordinate effectively.
- Coordination efforts with existing institutions may burden the existing workloads for staff and limited resources of the institution.
- Retaining jobs in New Hampshire may limit some institutional goals of diversifying employment opportunities for graduates.

Workforce Development & NH's Energy Future

Policy Considerations

- Who can undertake an effort to develop a coordination strategy for these institutions?
- What does a coordination strategy and plan look like that builds on career service efforts at NH education institutions – higher education, secondary, private and public?
- Is there political will for academic debt forgiveness for students who attend CCSNH or NH higher education institutions and stay in the state for at least 1-2 years after graduating?
 - Recent legislation (that was tabled this year) proposed a debt forgiveness Skilled Technology Worker Recruiting Fund to match employer programs – is this an effective model worth revising?
- Is there political will for a limited business tax break for the employers that hire recent NH graduates?
 - What would this program look like?

Retaining Existing Employees: Retraining and Enhancing Careers

The Job Training Fund

The Job Training Fund offers 50/50 matches for certain employers to develop job-training programs for NH residents or people who work in NH businesses. The program partners with the Community College System of NH (“CCSNH”) and lists them as the “vendor of first resort”.

Program Features:

- Focus is on unemployed and employed NH residents and those who work in NH businesses who pay into the NH.
- The program focuses on retention and diversification for existing workforce.

Opportunities

- Companies seeking to physically locate in the state (not yet present) can access the fund, making the program an excellent recruitment tool for new businesses.
- The program has a strong relationship with the CCSNH.

Challenges

- Clean tech companies may not be aware of the program.
- Cannot be used for employees living out of state who seek to locate to NH.

Policy Considerations

- What is needed to help clean tech employers expand their access to the Job Training fund?
- How can the fund be expanded?

Workforce Development & NH's Energy Future

Attracting New Employees: Engaging the Department of Business and Economic Affairs.

With historically low unemployment rates, now is the time to attract new workforce. Working with all industries, the state can multiply its impact by appealing to graduates and existing workers that are considering NH as a place to live and work.

Program Features

- Create and maintain an effective and stable image of clean energy and clean tech as important NH industries.
- Assist in the development of a marketing plan for the growing clean tech industry in NH that targets public spaces and out-of-state markets in order to entice younger talent and businesses to NH.

Opportunities

- The Commissioner of BEA is solid advocate for the sector.
- The timing for developing and deploying this program could not be better given the expansion in the sector, recent policy developments and the state of the economy in NH.

Challenges

- As a new department, time and resources will be stretched thin.
- Coordination of all workforce development issues will be challenging to insure all sectors are reasonably heard and represented.

Policy Considerations

- How can workforce advocates assist the new BEA in developing an out-of-state presence for recruiting workforce?
- What role can the BEA play in retention of existing workers and recent graduates?
- How can workforce advocacy partners collaborate effectively to the maximum benefit of all and minimize the burden on the BEA?

NH - Educate Thyself

A disconnect exists between policy makers' desire to grow jobs and the understanding that this requires a growing population of workers and young people to move to (or stay) the state.²

Opportunities

- Greater understanding of clean tech as a sector enhances workforce development efforts.

² Stay Work Play, among other advocates, embodies this mission.

Workforce Development & NH's Energy Future

- Expanded workforce development in clean tech creates a broader respect for the ancillary issues that confound workforce development in general.
- The newly formed BEA will be a significant partner in developing education and outreach for policy makers as well as coordination among these efforts.

Challenges

- A lack of understanding regarding the ancillary issues of workforce development hinders effective results in workforce development. These issues include:
 - Affordable housing
 - Transportation
 - Student debt
- There is a significant risk of duplication with a specific effort focused on clean tech.

Policy Considerations

- Important to understand that this effort isn't just about "clean energy," but has a greater reach, incorporating the broader range of the clean tech industry.
- The BEA Commissioner has a strong background in clean energy and clean tech – how can the sector support the Commissioner's efforts?
- What does the necessary education component for policy makers look like?
- Who can shepherd and house such an effort?
- What does integration of clean tech and clean energy in existing efforts look like in terms of design, stakeholder identification and implementation?

Effective means for measurement and evaluation processes

Effective public policy requires measurement and evaluation for success. A stakeholder council can develop metrics for success and constantly evaluate the state's progress toward its clean tech workforce goals. Consideration of the appropriate means to assure careful evaluation is critical to ensure efficacy of workforce development efforts.

Program Features

- A stakeholder council on workforce development should be empaneled, with responsibilities identified and agreed to. (A potential model for this exists within the structures of the NH Clean Tech Council.)
- A stable stakeholder council can coordinate initial efforts to include clean tech in ongoing discussions and partnerships addressing workforce development.
- The stakeholder council can insure that communications are organized, effective and not duplicative with partners groups advocating for workforce development and the sector.

Workforce Development & NH's Energy Future

Opportunities

- Effective advocacy with state entities can insure a more coordinated response to direct and ancillary issues associated with workforce development.
- A stakeholder council can more effectively work with the Governor's Millennial Council and the Council of Partner Agencies under the new BEA.

Policy Considerations

- Is the existing NH Clean Tech Council an appropriate body to shepherd these goals – or is a new body more appropriate, perhaps housed within the Department of Business and Economic Affairs?
 - Would a body separate from the NH Clean Tech Council facilitate broader participation from other efforts in the clean tech / clean energy sector?
- Would NH CTC involvement in existing efforts accomplish the same goals?
 - How can the NH CTC become more involved in existing efforts?

DRAFT

NEW HAMPSHIRE
SUSTAINABLE ENERGY
ASSOCIATION

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

October 31, 2017

Office of Strategic Initiatives
Governor Hugh J. Gallen State Office Park
Johnson Hall, 3rd Floor
107 Pleasant Street
Concord, NH 03301

Re: State Energy Strategy Public Comments

To Director Chicoine,

The New Hampshire Sustainable Energy Association (NHSEA) and the NH Local Energy Solutions Workgroup (LES Workgroup) co-hosted the annual Local Energy Solutions (LES) Conference on October 28th in Concord, NH. This event gathered over 275 attendees including energy committee members, industry representatives, students, legislators, and other engaged citizens. Attendees represented a diverse range of Granite State cities and towns and various experience and knowledge of local, state, and regional energy topics.

The Office of Strategic Initiative's announcement to accept public comments on potential updates to New Hampshire's State Energy Strategy provided an opportunity to solicit comments from this broad spectrum of energy champions at the LES Conference. NHSEA has compiled comments in five categories: overall vision, fuel choice/fuel diversity, grid modernization, transportation, and energy efficiency and submitted them below on behalf of the commenters.

All comments received during the LES Conference are provided below, separated by category, along with a sampling of towns to demonstrate the broad geographical range of commenters. We are happy to provide a full listing of attendees' towns if requested. NHSEA will also be submitting separate comments.

Sincerely,



Brianna Brand
Program Director
NH Sustainable Energy Association

OVERALL VISION

- There is much more citizen interest and involvement in energy issues due to the clear and present danger of the impact of climate change. NH energy policy is made by an incredibly complex system of insiders – especially utility representatives. The process needs to be opened up to citizen input. (Exeter, NH)
- Overall development of policy and goals and commitment to a progressive strategy to reduce NH's dependence on fossil fuels and integrate diverse, clean, renewable actions (both public and private). Help NH become a leader in forethoughtful planning and strong voice in face of disturbing national and statewide politics. (Exeter, NH)
- NH is rated 21st in terms of energy efficiency in economy. This should change. We should strive to be in the top ten like MA. (Sanbornton, NH)
- Pursue policy stability in order to provide consumers and businesses with certainty required to make long term investments in energy efficiency and renewable projects. (Durham, NH)
- Establish a new incentive program for renewables that does not rely on rebates, but instead offers incentives that involve “adders” from the utility rate and in some way offers tax credits from NH.
- Hanover NH is adopting “Ready for 100”: 100% renewable electricity by 2030 and all energy by 2050. We would like the opportunity to work alongside other towns and cities to achieve mutual goals, in addition to our local/state reps. (Hanover, NH)
- Set clear goals for 25-30 years out. Technology will continue to enhance our ability to reach the goals – adopt some form or wording around “Ready for 100%”. (Madison, NH)
- Keep policies we have in place (RPS, RGGI, EERS, etc) at least until 2025 or until superseded by more ambitious long term goals.
- Current vision is too near sighted. NH should be 10% renewables and distributed energy by 2020, 50% by 2030, and 90% by 2050. Solar prices have dropped 50% and storage 80% since last plan. Incorporate these trends into the new plan and the future. (Laconia, NH)
- Cut down on red tape to allow development of renewables, solar, wind, hydro. (Nashua, NH)
- Decommission and remediate Seabrook station, Schiller station, Newington station
- Focus on new strategies regarding the grid and microgrids. Incorporate strategies for new technology and jobs training. (Pelham, NH)
- Keep energy dollars in NH. Stop importing energy and sending our money out of state or out of the country. (Concord, NH)
- If transmission is a big part of our cost, then perhaps it should be the strategy. (Merrimack, NH)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Implement a time of use rate for low income consumers, use a food stamp type rebate or debit card. (Concord, NH)
- Create a single metric that measures all energy use either per capita or per square foot. We need to broaden the energy discussion beyond the price of electricity.
- We need to incorporate numerous alternative energy technologies. We need to embrace clean energy to create jobs and decrease imported fossil fuels.
- Panel of young professionals in energy that advises legislature on energy/environmental issues. (Weare, NH)
- We need to maintain and continuously update an energy policy that promotes efficiency and supports efficiency programs.
- NH should implement policies that encourage and facilitate the development of renewable energy resources, distributed generation, energy efficiency, battery storage, and other domestic, clean energy resources. The State Energy Plan should specifically recognize and place value on domestic and foreign sources of wind energy. (Loudon, NH)
- NH should show regional leadership and bring competition to the transmission sector of the customer bill. (Concord, NH)
- In the large scale, we need to open the cap of 1MW for the net metering program. (Portsmouth, NH)
- Give more importance to the renewable energy sources so we can stop burning more fuel. (Portsmouth, NH)
- We need program consistency. Programs and policies need to be firm enough that it is not at risk every two years depending on the political leaning.
- Establish green communities program for NH so communities can share ways to reduce energy costs and, instead of wasting money on paying higher electric bills, use the money to increase energy efficiency and upgrade school programs for our kids.
- State government should focus economic development efforts on promoting energy efficiency to our business community as a key means to reduce electricity costs and increase profits as well as to improve productivity (and therefore net profit). The state needs to be clear that our state strategy includes bringing small business into the energy efficiency fold. (Keene, NH)
- Let's accelerate the inevitable – we need to move away from fossil fuels NOW. (Northwood, NH)
- Vision: A sustainable energy system, a vision that every town can support for one reason or another. Clean electricity: the state needs to invest actual money into renewable energy and a sustainable energy future. (Northwood, NH)
- Invest in our future – use this wording instead of “taxes”. Save RECs. Reinstate the solar rebates. All residents benefit – not just those who can afford it. (Concord, NH)
- Match dollars for reducing carbon footprint. (Manchester, NH)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Feasibility to adapt to market and geopolitical change through increased independence from those influences. Prioritize local energy sources, energy storage, efficiency, transportation avoidance.
- Eliminate as many sources of point-source pollution as possible (i.e. coal by products, natural gas emissions, and greenhouse gas production from burning biomass, etc.) Achieve grid parity and power smoothing through the combination of several renewable technologies (i.e. solar PV + wind systems) both at the local and state levels. Incorporate local ecology and pollinator standards, where possible. Insert the future of energy storage technologies for NH as a whole. (Gilford, NH)
- Have to increase the RPS. This is the baseline financing mechanism for all of the funding. Without a good RPS, companies can't finance projects. RPS leads the cost of wholesale electricity to go down through simple math.
- Efficiency Maine has demonstrated dramatic results for energy savings and return on investment for ratepayer dollars. Their programs drive job growth and lower oil consumption, creating a large economic boost at the household and community level. Steps should be taken in NH to follow the Yankee frugal investments modeled by our neighbors to the east. (Concord, NH)
- Energy "czar" to oversee coordinated efforts statewide.
- Institute a carbon tax.
- thesolutionsproject.org provides a breakdown of renewables that could completely power NH by 2050 and create jobs.
- I strongly believe that a strong renewable energy program in our state is critical to our economy and way of life. People from NH want to live free...free of the shackles of the grid. We want our own power for our house, town, and business with local NH power. Solar, wind, hydro, biomass, built by and used by NH folks. Renewable energy that is designed and implemented in NH will reduce our grid dependence. In addition, it will probably reduce NH transmission costs. (Lyndeborough, NH)
- Require net-zero in all public buildings by 2030, new and existing. Require appraisers to give credit for energy efficiency and alternative energy (on-site)
- The words "electrification" or everything should be in the vision, as should "the end of the fossil fuel industry". I would also hope to see "modernizing the grid" as part of the vision. (Enfield, NH)
- We need better incentives for solar systems, for example higher REC prices, higher solar rebates. We should encourage real estate appraisers to recognize the value of energy efficiency for homes. We need PACE. (Bedford, NH)
- NH regulators need to step up to the plate in incentivizing energy efficiency and alternative energy use. The electric companies will benefit through reduced peak demand loads and increased demand in electrical appliances like EVs, heat pumps, water heaters, and furnaces. NH is falling behind in the implementation of PV, efficiency, and other alternative fuels compared to other states. We are not benefitting from the associated job

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

growth, improvements to environment, and overall greater expandable income that results in embracing PV and efficiency and alternative energy sources. NH cannot afford not to. (Goffstown, NH)

- NH should offer rebates/subsidies for battery storage. NH should encourage conversion to renewable energy. Base utility contribution to REF amount they spend on non-renewable fossil fuel based energy. (Rye, NH)
- I am a new NH resident and I would like to be proud of my new home state for leadership in renewable energy, energy efficiency, and grid modernization. We need some work to get there. (Concord, NH)
- Net metering rules: increase the cap on project size to greater than or equal to 2-5 megawatts. Allow customers that take power from 3rd party providers to also net meter. Stop the rebate program and instead obligate utilities to reimburse net metered customers at a fair rate. Obligate utilities to invest in technology that is able to provide net metering credits onto customer bills – this relates to community solar.
- Now is the time to implement a consistent, lasting energy policy that matches the efforts of our fellow New England states.
- 10 years is too short to manage an industry that has 50+ year capital lifespans. (Dover, NH)
- A diverse and robust energy future emphasizing maximizing all cost effective energy efficiency and more customer control over energy costs. Endorse an energy bank.
- Put measurable goals in the strategy. Put a price on carbon, like a carbon fee and dividend.
- NH RPS statute should be updated in new 2019 legislation, extending specific RPS and renewable energy goals to 2025 and beyond. (Nashua, NH)
- Create statewide energy conservation and local energy production measures at the town levels and map the town ratings on the OSI website.
- Improve energy transparency/data. Require energy providers (electric, oil, gas) to provide electronic usage data and, if desired, distribute to a 3rd party (with permission)
- Need NH to have a statewide goal for renewable energy. Need a set of common building codes for efficiency. (Hollis, NH)
- Emphasize local energy resources like energy efficiency, landfill gas, solar, and smart grid automation! Make utilities collect and share data to help deploy modern 21st century, smart grid. (Dover, NH)
- Incorporate the words “smart energy future”. T & D points of control and monitoring that enable net energy exchange, rather than inhibit.
- How will NH step up its game and compete with MA and VT using the available renewable energy and best conservation measures? (Washington, NH)
- Strive to make NH all electric. It is now technology feasible and replace all of our transportation, heating, and electricity with carbon free sources. (Center Sandwich, NH)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- We need to become a “green” state. We need to be a sustainable energy state. Holderness, NH)
- Keep the RPS and increase the solar requirement for local NH solar. Encourage the expansion of the electric vehicle charging network.
- NH government needs to set policy that incentivizes parties to create the change that is needed: role to re-educate and set policy (Rollinsford)
- Keep more of NH’s energy in-state and increase resiliency to disruptions (extreme weather, fuel supply disruptions) (Keene)
- Get 50% of energy from clean energy by 2030; 100% by 2050. (Chesterfield)
- 100% clean energy for all (Keene)
- Look at RE and EE as economic drivers and job creation opportunities (Concord)
- Empower local communities to take bold action to combat climate change and convert over to renewable energy. At the very least, don’t get in the way. (Concord)
- Resilience. Distributed production: municipal micro grids (safe and healthy microgrid).
- Prioritize local jobs (Mont Vernon)
- NH need to take advantage of the financial benefits that RE planning provides. We are not making room for the next generation and are falling short of our peers. There ARE cost-effective ways to move towards a more sustainable future, it will be the duty of legislators to look beyond their spheres and their lifetime.
- The unintended consequences of making changes / strides into become as much energy friendly as a state as possible can be detrimental to low income populations. The design of these 10 year plans needs to be inclusive about the diverse populations being impacted.
- Look at VT’s overall energy plan – no need to re-invent the wheel. (Littleton)
- Be realistic about goals and keep them voluntary, not mandatory. Try to solve some of the issues in the North Country, such as transportation challenges. (Littleton)
- Carbon pricing
- Lower energy usage (Dunbarton)
- 95 % RE (with 100% RE electricity) by 2030 (Lebanon). This will beat VT by 5%.
- Focus on developing a competitive market for renewable energy in NH. This should benefit the state economically and attract younger people and create jobs. Incentives and rates need to be better than neighboring states. State should prioritize all policies to fight climate change, this is necessary to protect our state’s tourist industry, ski industry, etc. (Hanover)
- Increasing renewables in NH will bring more jobs to NH. When we produce our energy using fuels from elsewhere we are outsourcing jobs as well. (Portsmouth)
- NH should have a fixed amount of funds for energy efficiency and renewable energy incentives that cannot be raided. The market needs to be stabilized in NH—more stable markets lead to jobs. (Portsmouth)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Addressing climate change through NH policies is critical to the state's economy and to move our state forward. Please consider implementation of policies to safeguard our environment, which is critical to our tourism-based economy. (Portsmouth)
- We need to stabilize our energy policy so that businesses can develop business plans that look out more than 2 years to the next election. (Rindge)
- Focus on reducing energy usage in buildings, vehicles. Determine if solar PV manufacturing can be brought in state. Add public transportation.
- EE and RE opportunities are unfettered by the vagaries of the state legislature and instead guided, with incentives that respond to the market forces.
- RE will create local jobs and keep money in NH. Keep the job growth local and let's add stability to the whole system. Western Governors just entered into an agreement for [EV] charging corridors for tourism and why not New England commerce (Kingston)
- It heartens me to see that our strategy is being updated to starting addressing these essential changes. The greatest opportunity we have here is to start changing the culture about renewable energy in our state. Through education, we can inform our public about the benefits of reassessing our grid infrastructure. This will reach our youth about the necessity of these changes and the future that we can start building now. (Durham)
- To get all energy needs from renewable sources. NH can produce all of its own electricity, that can stimulate economy and produce no GHGs. (Durham)
- Make NH a leader in preparing for the inevitable renewable energy future. Close the donut hole of funding compared to our neighbor [states]. Durham
- Let's decouple our energy supply from imported sources. Domestically produced power is sustainable, and beneficial for our state economy. It creates jobs too. (Penacook)
- Improve consumer/residential education about the benefits of renewable energy. Also, look at neighboring states, especially VT, for modeling how utilities participate and promote renewable energy and EE.
- Re-create successful solar programs from other states and implement on-bill net metering. The direct payment to the group host is not a bankable way to procure offtake for a given project.
- In order to attract investment, you need to change the policy. There is a missed opportunity for a clean energy economy with all the benefits that brings.
- NH has a huge opportunity to catch up with its neighbors (Governor Sununu wants to attract business) and use its native grit to be clean energy entrepreneurs and lead. Set high goals and meet them, focus on local solutions and use clean energy and grid mod [technologies] to unite the municipalities and business in a common NH purpose. Our state depends on tourism. Let's make it super appealing through this: live free and thrive. (Lebanon)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Our energy vision must recognize the reality of human-induced climate change and affirm the leadership role the state must take to move our country toward a carbon neutral future. (Dover)
- Build the 'social cost of carbon' into all regulatory decisions and state investments
- My vision is to have an affordable balanced energy system where no one is left behind—safety and security should be foremost. (Portsmouth)
- I would like to see more NH towns follow Hanover's "Ready for 100%" pledge. (Lyme)
- I would like to see more support for NH teachers on energy education (Lyme)
- Let's do even better than VT's goal for 90% of total energy to come from renewables by 2050. If they can do it, so can we
- Education: mandate K-12 energy awareness/usage etc. in NH. Fund educator/program costs on 50/50 basis. Set implementation dates. Also fund citizen education aimed at reducing transportation and housing energy needs. Fund incentives to reduce housing energy requirements and set target dates for percentage statewide energy usage per "unit" (eg. Car, house, etc.)
- State legislature and the Dept. of Revenue Administration needs to develop standardized guidelines for local assessors in assessing the value of the addition of solar systems to home valuations for property tax system (Canterbury)
- Role of the utilities: determine what new business plans the utilities should have in 10 years to adequately serve NH customers. How does the state of NH facilitate such changes? (Portsmouth)
- One of the biggest steps to encourage in the overall vision is outreach and clarity. People without an energy background would be more likely to participate in the policy process if there was more outreach to involve them (Durham)
- Set definite and precise goals to be a leader in renewable energy and sustainable development, with specific checks to regulate this. (Durham)
- NH needs actual goals coupled with milestones. We must include RGGI, we must support in-state renewables, we must think about programs that will increase the quality of life for NH residents. Our utility companies have entered into a compact and they ought to be held accountable to the public good, which is what they have been charged to do when they were granted their service territory in their contracts. (Upper Valley)
- More conversation from local decision making towards state, regional and deferral controls to enable coordinated renewable adoption, and GHG emissions reductions.
- Increase renewable, solidify funding and increase and keep it consistent: up and down funding does not work. (Sanbornton)
- The utilities can be part of the transition and part of the future or they will be left behind: listen to the visionaries. (Dover)
- No pipeline, especially large, export-oriented pipelines, these pipelines will ultimately increase the cost of natural gas. Focusing on EE will help us save money and is a smart

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

investment. RE, when done right, will also save us money and address pollution threats. Also, young people care about energy issues, want renewables and would rather you work with FERC to cut utility projects margins that cut our renewable energy and EE investments. (Pelham)

- Promote a student and citizen overall education and awareness campaign in energy literacy that supports smart sustainable energy decisions. Engage in a much more robust state effort to lead in policy efforts to reduce energy costs via energy efficiency, demand management, distributed generation and sustainable management.
- It is about lowering energy bills for all (participants and non-participants) and keeping energy dollars in the state, job creation, economic development, etc. – it is not just about rates. (Hampton)
- NH needs a long term stable policy which encourages sustainable energy development. The lack of policy has driven investment away from the state which would otherwise find its way to NH. (Deerfield)
- Clean energy license plate option (similar to conservation/state parks)
- Policy stability is important: annual and biannual threats to programs, rebates, grants destabilize the marketplace and the businesses involved, as in any special industry. Good plans require good execution – steady predictable and simplicity.
- Focus on EE and RE, then we could be a national leader. (Peterborough)
- Overall vision should be to increase efficiency options throughout the state. More benefits and incentives to transition generally to clean energy. (Strafford)
- Need stability! Funds running out, programs emerging and collapsing every few years, it all gets in the way of developing a stable, strong clean energy industry for NH. (Sutton)
- Continue and promote the benefits of a clean and healthy environment. (Sanbornton)

FUEL CHOICE / FUEL DIVERSITY

- Set a goal to “charge the state” so all visitors will know NH is advanced and can handle their EV. Also seek private investors to invent a new mass transit alternative.
- Fuel diversity is stabilizing when energy market prices fluctuate. We need NH based energy sources that have stable markets for their business to invest & employ people. This means solar, biomass, and wind that we have here, all good for NH (Madison, NH)
- Set statewide goals for reduction of fossil heating fuels and steady displacement by renewables and efficiency. Not enough attention to thermal
- Fossil fuels shall be phased out and not be a choice unless all environmental and health externalities are priced (Laconia, NH)
- Filtered fracked gas to reduce chemicals mix in fuels & fuel delivery monitoring for emissions (Nashua, NH)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Please start supporting electric vehicles with state rebate as well as charging network. Please no more support for fossil fuel related investments (like pipelines) which need to be phased out for reaching our CO₂/greenhouse gas emission goals. (Enfield, NH)
- We need an actual NH SREC Program! (Boscawen, NH)
- Incentives should be technology blind; upstream carbon tax (Canaan, NH)
- Support development of knowledge regarding carbon fee & dividend in NH with endpoint of a C+F program. Support congress & senators to participate in Paris Climate Agreement. Transition from a position of diversity with its current slant to fossil fuels to one with an emphasis on renewables with a target of total renewables by 2050 (Pelham, NH)
- 75% renewable by 2030, need a mix of fuel resources. (Concord, NH)
- Our fuel diversity should include a study for offshore winds. (Merrimack, NH)
- I want distributed energy generation, i.e. strong state policy for rebates for behind-the-meter generation. (Concord, NH)
- I have serious concerns about the dominance of natural gas in our energy.
- Make renewables part of state identity, as geothermal is to Alaska, solar to California, wind to Rhode Island – brand NH as a small hydro state. Long term RPS to attract jobs & investment. Need policy stability. Expand net metering. Utilize local fuel sources. Implement a CNG tax – to be used only as peaking, similar to coal, oil, and jet fuel. (Weare, NH)
- Encourage utilities to purchase local energy on their lines (i.e. local hydro, solar)
- Encourage utilities to participate in distributed generation by allowing them to build generation and earn revenue (Littleton, NH)
- Promote use of locally derived biofuels. Explore use of hydropower from tidal energy and offshore wind.
- We need a solar goal for the state separated by large projects where energy goes 1-out of state, 2-instate, 3-smaller behind-the-meter projects (Holderness, NH)
- Biomass thermal & CHP should be encouraged. Thermal technologies should receive the same emphasis as power and transportation technologies. Often thermal represents the lowest hanging renewable energy fruit. (Lyme, NH)
- Focus on performance not fuel, where the focus should be on maximizing reductions in greenhouse gas emissions
- Prepare for beneficial electrification
- Incentives for landlords to convert to more energy efficient units & mandatory recycling for renters in Concord (Wash, NH)
- It is a mistake to subsidize, or encourage, expansion of forest biomass energy. It is not carbon neutral on any timescale and on a large scale has the potential to deplete our forests (Center Sandwich, NH)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- We need to use fuels that minimize the environmental outcomes (CO₂, ozone, NO₃, etc) but maximize comfort levels of the fuel users (Holderness, NH)
- Strongly encourage the installation of solar PV in homes and businesses. Add incentives for battery storage.
- Proactive planning: 1-what will happen when Seabrook station closes? What are we doing to replace with clean renewables? 2-for electric vehicle charging stations to encourage 0 tailpipes. Also P.A.C.E. (Kensington, NH)
- We need to study the feasibility of offshore wind development. We are lagging behind other states in moving forward to develop this resource. We need to recognize the environmental price of natural gas and not allow further pipeline development. (Exeter, NH)
- Increase renewable energy & tax fossil fuel to offset the real cost of using it. (Sandwich, NH)
- Invest in clean electricity generated by solar, wind, and other renewables.
- Set goals for energy being produced within our state, not petroleum based – solar & offshore wind, etc. (Concord, NH)
- Reduce the impact of market and geopolitical economic disruption. Increase competition among energy sources and support innovation.
- Put solar charging at rest stops & have the panels shade the parking spots. Bury Northern Pass. (Manchester, NH)
- Need cost/benefit study on true cost of fuel sources instead of simply looking at cost. Diversity ensures protection from cost spikes.
- It is important for NH to install charging stations around the state. We are quickly moving towards higher sales of fully electric vehicles in the next 3-10 years. (Hudson, NH)
- Need public access to charging stations, i.e. on public land, school parking lots, library parking lots; could charge reasonable fees.
- Go right to the green renewable energy economy instead of using natural gas as a bridge fuel; stop the reliance and development of natural gas. Consider thesolutionsproject.org, who has calculated the exact mix of renewables that would power each state 100%.
- Incentivize utilities & energy companies to develop their own renewable plants to phase out fossil fuels.
- Create stable incentives to increase distributed generation.
- Any non-renewable fuel (natural gas, oil, etc) should not be developed – no new infrastructure to support a fuel that isn't local and isn't helping the environment. (Enfield, NH)
- We need incentives for geothermal. (Bedford, NH).
- The state should be taxing fossil fuels whose consumption are huge contributors to climate change and use these funds to incentivize alternative fuels.

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- First choice policies that prioritize local energy. (Dover, NH)
- Priority should be fuel free (i.e. no fuel used to transport) and emission free supply options. If necessary, add new large hydro for fuel diversity goal.
- Provide rebates on battery storage both at the residential and PV/wind generation levels.
- Energy efficiency = the 5th fuel. Reduce regulatory burden on small hydro, especially non-dammed systems. (Dunbarton)
- Keep energy local: wood, solar, hydro. (Hollis, NH)
- Expand net metering and solar as a freedom of choice.
- Customers should have fuel choice and there should be an SBC for all fuels so that the EE funds collected are equitable and can then be expended equitably. In order to keep \$ in the state, there should be more incentives for wood.
- We should greatly increase the amount of renewable energy – solar, wind, small hydro, and biomass. Then more of our energy will be locally produced and less subject to the total grid going offline at once from a natural disaster, etc. We should also invest/give incentives for heat pumps.
- Through education, ratepayers need to understand that “local” energy choices are not necessarily the “green” choice. This myopic view gives rise to NIMBYism. Climate change and our energy choices that impact the climate are not regional but global issues. For example, hydro from Quebec presents a source for clean energy access. To meet our climate goals we must be willing to compromise on siting.
- Expand access to natural gas. Best goal: air source heat pumps driven by solar = net zero. (Sanbornton, NH)
- Fuel choices: biomass and solar. (Dover, NH)
- State and legislative policies should promote customer choice and fuel diversity options that encourage fair and open market for renewables of all types to compete against oil and natural gas options. Recognize that fossil fuel industry was/is subsidized, so renewable subsidies remain valid. (Hampton, NH)
- I’d rather have natural gas heat my home than oil, I’d rather have efficient heat pumps heat my home than natural gas, I’d rather have panels “fuel” my car than gasoline, but availability costs play a restrictive part in change. I’d like to see the state energy policy look at the state’s availability of resources, timelines for change given new technologies, and lay out a transition plan to move residents along a plan to become green (environmental and economic) consumers. (Rollinsford, NH)
- Invest in wide enforcement and raise the bar for new construction. These new buildings are assets that will last 50-100 years. (Durham, NH)
- Support biodiesel manufacturers with state contracts for heating oils and on road diesel. Establish state minimum of 5% biofuel in home heating oil.
- Use biodiesel instead of diesel. Provide more funds for solar energy reduction so that buildings could be heated with electric heat pumps. (Washington, NH)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Retain/expand incentives for renewables. Explore offshore wind for job creation. This has a huge potential to power NH. We need a smart grid to enable distributed generation and no new infrastructure for fossil fuels. (Keene, NH)
- Need to increase use of PV, wind, and biomass: all local, retaining energy, tax, investments, labor money in state.
- I want to see no expansion of the fracked gas infrastructure in NH. I hope NH makes a 100% clean energy commitment in the next few years. (Keene, NH)
- More solar! It is viable in NH. Also include wind and hydro (we need to protect hydro). (Keene, NH)
- To consider an energy strategy without accepting what 97% of climate scientists around the world and 200 countries signing the Paris Accord is absolutely delusional and will result in our putting our money in areas that will contribute to intense suffering and possibly the demise of human civilization. Climate change doesn't stop just because we choose not to consider it. Let's help our state provide jobs that young people will want to stay here for. The atmosphere and life's support systems, like the ocean, do not stop at NH's borders. Times have changed we must change our thinking and stop thinking progress can happen, or is fostered by, unending economic growth/energy use is possible. We have to rethink the concept of progress. Many have already begun this process. Stop saying getting to 100% renewables is "tilting at windmills". Care about our children, make a livable world. Wake up!
- Increase RPS % renewable requirements on utilities, especially solar. Stop looking at RGGI and RPS repeals every year. Pass a bill adopting the new more stringent RGGI standards.
- Adopt a new program that offers steady, predictable incentive for renewable energy generation. The value of the incentive can decline overtime as costs of renewables come down. (Concord, NH)
- Institute a carbon tax. Enhance the Systems Benefit Charge. Provide real credit for renewable generation power to the grid. (Peter Kelley, Manchester, NH)
- Municipal level geothermal needs to be considered because of new advances in heat exchange tech (ground based, air, water). (Nashua, NH)
- All NH cities should work toward 100% renewable energy for homes and businesses and government buildings. (Pembroke, NH)
- Fuel diversity is difficult to achieve in NH without adjusting the renewable portfolio standards to accommodate and reflect community needs and demands. How can we make that change?
- Make solar a large scale option.
- Governor Sununu should request that the Bureau of Ocean Energy Management establish a taskforce to study the potential for offshore wind in NH. We are the only coastal state that has not done this. (Enfield, NH)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Don't use fossil fuels anymore. (Littleton, NH)
- Promote wood chip/pellet production in NH. Promote rental of solar panels. (Littleton, NH)
- Favor local fuel.
- Offshore wind must be in plan
- Improving ACPs/properly funded REF
- Encourage use of renewable natural gas, ideally by pipeline, to stop use of fracking while making the most of existing infrastructure (Lebanon)
- Tax incentives (the property tax exemption) for solar should be statewide, not town by town.
- State should fund renewable energy incentives from the General Fund (Hanover)
- Net meter rates should be competitive with the rest of New England.
- We need infrastructure to allow energy to flow into the grid at the same rate it flows out of the grid (Wolfeboro)
- Incentives for all renewable fuel options (Portsmouth)
- We need more renewable energy resources that will keep our children in NH, will increase job opportunities. We cannot stay with the energy status quo. (Keene)
- Section 5.4.4 in existing state strategy needs to go! We should not be pushing natural gas. This thinking was popular before we knew about the methane being 83 times as powerful as carbon as a greenhouse gas in the short term. Hydro also needs a boost, especially small, local hydro. (Rindge)
- Everyone consumes and new economies are such that nearly everyone could produce: municipal responsibility to offset some of grid cost/need. Like the education system mandates public schools, "energy system" could mandate public generation based on local assets (eg. Solar, wind, tidal, bio)
- Reconfigure Renewable Energy Credit funding mechanism to stabilize funding. Provide fund for insulation and weatherization prioritized for worst performing buildings in the state. (Manchester)
- Hydro dams need to be converted to Archimedes screw technology to enable fish to travel without impediment (Nashua)
- Maintain a healthy REC market and fund the solar rebate program.
- We need more support for community solar and promotion of local solar companies
- We should start phasing out fossil fuels as we know other, cleaner options are available. Why can't oil, fuel companies be incentivized to offer other renewable options? Tax breaks for homes that use more efficient options, etc.
- Need more emphasis on modern wood heat (Sutton)
- Prioritize and continue state incentives for residential alternative energy production. This brings the citizen of NH for a common goal of energy independence. (Sanbornton)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- The State of NH must make a financial commitment to our energy future (e.g. bonds): In the depth of the recession in the early 90/s, NH made a \$25 million commitment toward the future of Pease and its redevelopment.
- Creating a more diverse energy system will allow us to have a more resilient energy system and make us less reliant on dirty energy; moving away from a fossil fuel based economy will save money, reduce our carbon emissions, and build jobs (Newmarket).
- At this point, it's delusional to think we can rely on fossil fuels for our energy needs. Let's start leading the charge towards being a renewable state and show our country how to grow our industry while cutting ties with fossil fuels. (Epping)
- Keep fuel choice in-state; limit our sources for fuel like natural gas. Also, have target points to decrease reliance on fossil fuel
- Support electrification of transportation, heating, and cooling. Encourage biomass, solar, and heat pumps. Open energy market to energy storage and renewable energy
- Re-align policies to make delivered fuels on a level playing field with regulated electricity and natural gas, such as a system benefits-style charge for heating oil and propane.
- Don't put any more resources into gas pipelines. We need to prepare the state for the inevitability of renewables. We are falling behind our neighbors and losing jobs.
- There should be benefits to fuels created locally (biomass, renewable energy, tidal, hydro). Diversity and resiliency are critically aligned.
- Priority must be on renewables
- Shift away from carbon-based fuels and expand the RPS. (Bow)
- Off-shore wind must be included in NH 10-Year Plan.
- Fuel diversity at an equitable level will allow consumers a choice of which fuel types we support. As fuel diversity increases, the cost for all types will levelize.
- Decrease the reliance on fossil fuels and source energy from different renewables. Increase the wind power that is available (onshore and offshore). And make solar panels more accessible, through payment programs, etc.
- Emphasis on modern wood heating and automated pellet systems using local pellets. Create logging jobs, very efficiency carbon neutral technology with all the advantages of fossil fuel boilers – minus the bad!

GRID MODERNIZATION

- We need to move from statewide grids to microgrids so that energy is used and produced locally. (Holderness)
- Grid mod is a great idea as long as it proves o be worth the effort – the benefits are higher than the cost.
- DER & DSM –Passive (energy efficiency) and active (solar and storage, CHP and storage, wind and storage). Real time analytics enable predictable analyses.

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Come up with a new term for “grid” to provide all residences and businesses with the power they need. Call it distributed power conduit and figure out an innovative way to share and store it. (Madison, NH).
- Grid modernization is a tremendous boost to the middle class with good paying jobs and benefits, creating a work, stay, play in NH scenario. (Pittsfield, NH)
- Grid modernization should include customer sited storage. (Laconia, NH)
- Ban fossil fuels in NH.
- Understand that natural gas is cheap and successful at the moment because of an investment bubble, but we don’t want to rely on it for the decades that natural gas infrastructure takes to pay off. (Enfield, NH)
- Provide more choices when buying electricity so people have the choice to purchase from a cleaner utility company. (Enfield, NH)
- Demand utilities buy energy from cleaner sources in higher percentages. (Enfield, NH)
- Grid modernization should focus on resilience and efficiencies. Support distributed generation with charging/disincentives for line losses. The goal should be for each entity to be self-sufficient. (Canaan, NH).
- Critical infrastructure modeling as a whole system instead of the grid itself.
- All new construction should have smart meters. The building code should be updated to require it. (Concord, NH)
- Incorporate storage into the future of grid modernization.
- Include real time monitoring of utility outages and smart meters. Utilities should embrace EVs and electric heating. (Weare, NH)
- The state energy plan should examine the relationship between solar energy and bee colony collapse (Concord, NH)
- Invest in battery storage systems for our policy and fire departments. Have all utilities do peak load shaving voluntary programs. Bury power lines. Provide rebates for mini off-grid systems.
- ISO-NE should be required to notify the state of NH and all affected towns when ISO-NE considers solutions to system reliability issues. The state should be required to participate in identifying solutions; towns may elect to do so. (Loudon, NH)
- Incentivize distributed generation.
- Cut peak load with real time rate communication to customers.
- We need to balance the capacity of the grid with the growth of the population in each area. (Portsmouth, NH)
- Energy conservation will be/can be enabled by information. Rural homes suffering from poor internet access also suffer from connectivity allowing occupants to learn about and control their energy use. The internet grid may be as important as the power grid for energy conservation & use. (Lyme, NH)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Develop/determine the phases of grid modernization that must be followed so that steps in the beginning allow the future steps to occur organically or more quickly. Put in place incentives appropriate to allow the utilities to transform from a business that benefits from direct sale of electricity to an entity that enables the integration of central generation and distributed energy sources and provides signals to customers that will enable them to manage their use and demand. (Durham, NH).
- We need more resiliency to weather storms and future outages. Focus on increased storage and microgrids. (Wash, NH).
- The utilities need to have incentives to change their business plans to shift towards accommodation of distributed energy and service/installation support. (Center Sandwich, NH)
- We need to balance the need of utilities and consumers to transform the grid to more of a less centralized model but keep the grid strong. We need to encourage the grid to accept renewables and battery storage.
- Decentralize the state's energy generation through a collective of small, local generation plants along rivers for hydro and wind power. These could be taxpayer funded or funded through other means to minimize taxpayer expense to preserve NHs energy autonomy. (Tilton, NH)
- Invest in smart grid technologies. Invest in battery back-up to lower demand costs. (Sandwich, NH)
- The grid should be upgraded to reflect time of use rates so electric costs in NH can be reduced and motivate energy users (commercial and industrial) to install energy storage systems to shift peak demand energy use.
- Lessen line loss by having more local energy facilities. (Concord, NH)
- Need to improve the grid & bury lines in some areas, also allow for adaptation as DERs come online. (Manchester, NH)
- Allow/plan/encourage capacity of distributed generation.
- Need a strong, consistent policy for interconnections.
- We need a standardized smart grid. Provide mechanisms for users to know when the cost of power is high. Incorporate time of use and provide mechanisms for behavior change.
- We need to harden the grid against weather and malicious attacks. (Bedford, NH)
- Recognize standards based policies to ease introduction of technology and consumer choice. (Dover, NH)
- Add time of use and other billing structures to help us all understand the true cost of electricity and the true benefits of solar and other renewables. Incent distributed battery storage throughout NH for use by the grid with permission by home/business owner. (Enfield, NH)
- Prepare grid to accommodate more distributed generation. Incentive and have the grid ready to handle more time of day use and demand response.

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- We can greatly reduce peak load by using TOU and energy efficiency, avoiding the most expensive fuel and lowering our energy bills. We should reward efficiency investments and start a “green bank” in NH.
- Grid modernization should incentivize the deployment of dynamic grid management that supports distributed storage and generation. This will allow market forces to incrementally improve efficiency. (Milford, NH)
- Modernize and make the grid resilient. Technology will come but communication is here now. (Hollis, NH)
- Utility smart meters are economically efficient, time-based rates for both electricity consumption and distributed generation. Prices should reflect supply and demand in real time, as opt-in. Reward efficiency, batteries, demand response.
- The grid should be decentralized with a collective of small, local generation facilities operated by the state or run through public-private partnerships to minimize taxpayer cost. These community based renewable resources would protect energy autonomous capability. (Tilton, NH)
- An equitable grid charge that works under a net metering regime needs to be developed.
- Grid modernization should include: 1-variable pricing to time of day (peak) use; 2-develop the “switch” so a net metered, PV system can be used at the site of generation when the grid is down; 3- develop systems for storage so no new plants need be built; 4- encourage, not discourage solar, wind, and electric generation.
- Delaying a transition to a smart grid will hinder NH economy by forcing continued export of dollars from our state (Penacook)
- Shore up recognized constraints on grid that would discourage ground-mounted solar and other renewable facilities in sparsely populated areas (e.g. Coos County) (Lebanon)
- Battery Storage
- Investigate the potential for using EVs as battery storage to help with peak demand
- Demand-based rate pricing. Let consumers decide when is best to use their electricity when it is less expensive for everyone (Portsmouth)
- Our grid should be heading towards an increase in renewable energy technologies and an expansion of RPS. (Portsmouth)
- This is a major area for innovation. I would like to see the State Energy Strategy provide opportunities and platforms for application development. (Rindge)
- Clarify the discussion on the electricity grid. Simplify where the utility has over complicated the calculations.
- Create smart, real time exchange of data. Includes transmission lines and equipment, loads, transformers, etc. (Nashua)
- Support rooftop and community solar more: no Northern Pass; people love NH because it doesn't have so many power lines. [NP] is not needed: EE can do it.

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Utilities should support generation of solar and be able to distribute that energy to home and business owners who don't have solar. (Strafford)
- Let's get real time data into play – let electricity users respond to rates that shift based on peak/off peak demand. Let data drive behavior change. Show customers how their energy use compares to their neighbors. (Sutton)
- Educate public on how the grid operates overall and in NH. Illustrate how the grid works and costs are passed on to NH customers (Sanbornton)
- We need time of day electric rates to help reduce peak demand. We also need timed/synchronized traffic lights to reduce fuel use, improve traffic, reduce stress (Nashua)
- Improve grid resilience (Mont Vernon)
- Grid modernization is important to save money and improve safety [from hacking] and to create jobs (Pembroke)
- Pressure needs to be put on utilities to partner with solar companies; they [utilities] need to change their structure—the energy and electric world is changing dramatically and utilities need to get on board or they'll be left behind.
- PUC should work with utilities to invest in grid mod while eliminating "improvements" and "maintenance" of transmission system." There are models out there that help with these upgrades; it's not a money issue, it is a problem with ignorance and laziness.
- Update school and town buildings to "lead the way."
- Bring 3-phase power to more areas so large scale solar can be produced more.
- Encourage PUC to roll out vehicle to grid (CV2G) technology to use EV batteries to store electricity and stabilize the grid.
- Need to better distribute generated electricity especially sustainable sources. (Littleton)
- Push information/data out to consumers; price on real time basis so consumer can make choices on usage in real time.
- More friendly to locally produced power connection, solar/hydro/wind. Local storage station to reduce the need for larger lines to a few back-up power sources (Dunbarton)
- The state's largest utility must invest in the smartest of smart meters. Utilities should be paid to experiment with storage. (Stratham)
- Our grid is outdated and inefficient. It's time to grow our industry through renewable sources, creating jobs, and infrastructure that will be reliable, efficient and durable: with the modernization should come public outreach and engagement to educate the state about the changes coming. This will minimize doubt and increase understanding of the positive changes (Durham).
- Allow for more addition of solar and storage; to better avoid the duck curve. (Durham)
- Be open to non-transmission alternatives and avoid single-bidder processes that gave Durham the highly flawed seacoast reliability project. (Durham)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Set policies that align incentives with energy utilities and energy consumers to encourage electric EE and demand reduction. Establish a system benefits type charge for delivered fossil fuels, such as heating oil and propane. Encourage 100% installation of electric smart meters and real-time consumption information.
- Encourage distributed renewable energy: microgrids help towns be better able to ride out storms and external disruptions. They also keep energy income in the state which benefits all of NH. (Peterborough)
- Energy storage is a priority for public safety, hospitals, and commercial entities. We need goals, mandates and incentives to facilitate the changes – this can't all happen without decoupling. (Lebanon)
- Utilities must be required to invest in the metering technology necessary to enable grid mod and stop spending ratepayer money on equipment that does not do so.
- Accelerate the process of NH grid modernization to allow for more distributed generation and market forces to drive EE and RE, and reduce peak use. (Bow)
- Furthering grid modernization is important as new energy technology increases. Instead of funding and maintain older “dirty” power plants, this money should go towards improving grid modernization. (Durham)
- Make it easier to connect the utilities with consumer homeowners who want to have PV solar panels without necessarily totally having to cut themselves off from the grid. (Durham)
- Increase weather forecasting abilities of the utilities. If utilities can increase their certainty, renewables will have a larger role in total energy use. (Upper Valley)
- We must require updated AMI that provides two-way flow of information and gives transparency to our energy grid and to optimize the system (Upper Valley)
- Utilize grid modernization at all utilities to reduce demand and electric costs. (Sanbornton)
- More customer-use data and time-of-use billing. Decoupling is a priority, as is decentralized distributed energy. (Dover)
- The state should be committed to supporting development of a modern grid that can support interconnection of distributed generation resources from all around the state. The grid must allow for flow of power and data in both directions and be resilient to ensure reliability across all weather conditions. (Hampton)
- Need grid integrated battery storage to create a resilient and adaptable distributed system that can accommodate increased distributed generation. Can the utilities own battery storage to capitalize the costs and get them into rates? (Rollinsford)
- Like other infrastructure planning, the electric grid should be subject to rigorous public oversight and input. This should not be left to the electric utilities to plan; the PUC should expand this process to other entities like planning boards, RPCs, the SEC, state agencies and towns. (Durham)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Support microgrids and plan to move away from centralized distribution to local distribution with remote support.
- Increase flexibility, resilience, to be a more responsive, automated system (e.g. microgrids)
- Decentralized solar PV will strengthen resilience, reduce transmission costs and with storage, can provide power during outages. (Chesterfield)
- We need more and smaller, grids; macro is not efficient. Divide the grid by regions and diversify it. (Keene)
- Smart meters are a priority, as is time-of-use metering. Also, a priority: distributed generation and group net metering should be streamlined (Manchester)
- Approve and follow-up on the Grid Modernization Plan now under consideration at the PUC. (Concord)

TRANSPORTATION

- We need more charging stations across the state for EVs. (Northwood, NH)
- We need East-West bus service on Route 4 and train service to central NH (Concord, Manchester, Nashua, Boston). We should also help fund the Downeaster and expand other train options (tourism, freight) in the state. (Northwood, NH)
- We need charging stations in Concord and other NH destinations for tourists to use. Compete with neighboring states for charging stations. We also need to tighten up clean air standards to make NH's comparable to surrounding states. Set goals for 50% of state's fleet to be EVs. (Concord, NH)
- Should plan for: non-fossil fuel infrastructure, autonomous vehicles, shared vehicles, mass transit corridors as part of highway corridors.
- Need better bus traffic and mass transport where routes reflect need.
- Commuter rail will reduce the amount of fossil fuel usage and is essential to growing the economy and creating jobs. (Warner, NH)
- NH should adopt the emissions limits of CA, VT, MA, etc. We should use the full 15% from the Volkswagen settlement to incent smart deployment of EV chargers. (Enfield, NH)
- We should give a discount to EV drivers on EZPass. (Bedford, NH)
- We need to increase opportunities for public transportation, train service in particular, and make it more affordable.
- Every community should have ready access to EV charging stations. The state should replace all state owned vehicles with EVs. (Dover, NH)
- Rapid build-out of infrastructure to support rapid electrification of transportation. Advance more transportation options and more efficient options, especially rail
- Build EV infrastructure in NH and provide incentives for businesses and municipalities to build charging stations.

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Coordinate bus routes through towns leading to local cities. (Dunbarton, NH)
- Deploying and incentivizing charging infrastructure will enable NH businesses to compete in the wider regional economy. If instead we become an EV desert then EV drivers will go elsewhere. (Milford, NH)
- Raise the road tax on fossil fuels.
- Add charging stations to all liquor stores. Mandate parking lots over a certain size to have a certain number of EV charging parts. (Hollis, NH)
- EV infrastructure deployment and building NH's EV market is good for tourism. (Dover, NH)
- Can utilities develop and maintain EV charging stations?
- Expanded mass transit in the Concord – Keene corridor. Also expand transportation to places where new Americans can access services. (Washington, NH)
- Incentivize a big increase in electric vehicle charging infrastructure. (Center Sandwich, NH)
- We need better mass transit systems. We should also subsidize vehicles that minimize the negative outputs (CO₂, NO₃, etc). (Holderness, NH)
- Make sure the state uses the 15% allowed in the VW settlement for EV charging – high voltage DC & level 2.
- Match funds with Volkswagen to help create charging stations on tourist corridors in NH. (Exeter, NH)
- The state of NH should implement a strategy to facilitate adaption of EVs. Incentives should be provided to employers for charging stations and high efficiency public transportation should be a part of the state strategy. (Tilton, NH)
- NH should strive to make it feasible for citizens to own EVs. We need more charging stations in public places. (Sanbornton, NH)
- NH should join CA and 16 other states in making sure only car companies who sell EV or hybrid cars along with their gas fueled cars may sell in the state. (Sanbornton, NH)
- Install more charging stations! So the visitors to our state can charge their EVs. This will help motivate NH residents to buy EVs as well and pay much less for transportation and have more money to contribute to our economy.
- Install more chargers around the state. (Sandwich, NH)
- Develop a strategic electrification plan. Utilize the full funding available through the VW settlement for EV infrastructure. (Durham, NH)
- Funds from the VW settlement should be used as grants for cities and towns to replace aging town vehicles with EVs and public charging stations. This can save municipalities money and improve the statewide charging network. The collateral health benefits from reduced fossil fuel emissions will save everyone on health costs.
- EVs are the near future. Our tourists will be arriving in EVs. We must have well distributed EV charging stations and incentives to employers to use their space to support

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

employees' use of EVs. Transportation in rural areas will always be dependent on cars. Rural areas have land for large and small-scale ground mounted solar that can fuel our cars. EVs are the hope for allowing rural populations to share in energy/efficiencies. (Madison, NH)

- Tourism is extremely important to our economy. As the world transitions to EVs, we need charging stations to support would-be-tourists. (Holderness, NH)
- EV chargers are needed throughout the state. (Concord, NH)
- NH should be 10% electric by 2020, 50% by 2030, and 100% by 2050. We should create intercity rail up to Laconia. We should also integrate auto battery storage with the grid. (Laconia, NH)
- We need light rail from MA to Nashua, Manchester, Concord, Tilton, Loon Mountain, Nashua Milford, Peterborough, Barrington, Keene area. Reduce GHG overall and encourage EV use and solar EV charging stations. (Nashua, NH)
- Encourage compact, residential solutions & smart growth. (Enfield, NH)
- EV chargers at all rest stops and park and ride lots. (Boscawen, NH)
- Offer incentives for purchasing fuel efficient, biodiesel, or hybrid cars.
- Encourage integration with state and local planning to encourage walkable/bikeable communities. Increase rail and bus lines. (Pelham, NH)
- NH needs a plan for having EV charging stations. This is important not only for residents and towns but also attracting businesses like Amazon. (Merrimack, NH)
- Stop subsidizing fossil fuels. (Concord, NH)
- Incent employers to provide solar based charging of EVs from PV during the day. DC to DC charging @ work will be more efficient than night charging from the grid.
- Include in the plan: a commuter corridor on I-93, public transportation, ways to attract young people and tourists, EV infrastructure, less emissions, and connect to MA/Boston. (Weare, NH)
- Bring back trains from Boston to Lincoln. Institute carpool lanes and parking in places to make a point. Continue support of rail trails and paths connecting communities.
- Our EV network is weak in NH. Our state facilities should have EV charging stations.
- Allow customers on competitive supply to participate in group net metering. (Littleton, NH)
- EV corridor: interest in creating EV stations to accommodate tourism travel from Montreal and Quebec City down into NH and Maine.
- Incentivize adoption of EV with provisions to recover missing revenue from gas tax.
- More incentives to drive electric and more taxes if drivers produce carbon emissions. (Portsmouth, NH)
- EV charging infrastructure essential (11) especially because of tourism!
- Increase percentage of state vehicle fleet that is EV, and require that every state department look at EVs when procuring (Concord)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- We need solar-powered charging stations and easily accessible and affordable public transportation with more eco-friendly vehicles (like the eco-line that UNH has) (Durham)
- Time of Use rates for consumers to pair them with EV charging at night, also have EVs act as storage for the [electric] system (Upper Valley)
- Electric buses to/from Park & Rides (Sanbornton)
- Adopt California ZEV mandate and use the full 15% of VW money for EV charging infrastructure. (Bow) (4)
- Support biodiesel manufacturers in the state and establish state minimum of 5% biodiesel in on-road diesel and reduce/remove fuel tax on biofuels to incentivize it to consumers.
- Promote and enable purchasing of EVs (Washington)
- Support mass transit (Dover) (2)
- Support better bike travel, bike lanes and better walkability into downtowns (Pelham)
- Fund incentives for car recharging stations (carpool parking lots, etc.)
- We are very dependent on tourism and all the states around us have plans to move toward EVs. How are we going to attract EV driving tourists if we are not equally prepared with EV policy in our state? (Hollis)
- Must make more energy efficient transportation available to all levels of society. (Durham)
- Municipal clean bus incentives are important, as well as support for trains. (Lebanon)
- The federal government is threatening to back away from fuel economy and GHG standards for vehicles. NH should join the rest of the Northeast and adopt California low-emission and zero-emission vehicle requirements. And dedicate the 15% of VW money to EV charging infrastructure. (Dover)
- Need plan to support deployment of EV charging assets throughout state
- Look for low-hanging fruit for charging infrastructure, ex. Use combo of DES and Tourism to encourage hotels/motels to install 110 Volt outlets in parking lots to encourage tourists with EVs to come to NH (Lebanon)
- Electric School buses
- Increase Charging station in the state (Hanover)
- EV Charging stations need to be throughout the state (Wolfeboro)
- Use allowable 15% of VW funds for EV infrastructure & find additional funding to do rebate for municipalities to install their own infrastructure (Portsmouth)
- Expand EVs and charging stations (Portsmouth)
- We need public transportation (commuter rail) and we need more support for EVs, including state incentives. (Rindge)
- Increase number of charging stations statewide (Concord)
- Transportation requires encouraging EV adoption. The solution is a simple legislative fix: Time-of-Use charging structures that encourage nighttime charging; and, support the development of EV charge stations.

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Need more public transportation options. Eg. Electric school buses that can be solar charged with not being used for their short trips.
- Increase EV charging stations, including at gas stations. Provide incentives for business owners for switching to or adding EVs. Eg. Rental car companies, taxis, ambulances, etc. (Strafford)
- Focus on transportation efficiency and demand management as well as a focus on transition to EVs.
- Increase timed/synchronized traffic lights.
- Need to address how to pay for roads and bridges with the reduced fuel tax revenue due to improved fuel efficiency. (Nashua)
- Increased charging stations for EVs for commercial vehicles, and expanded light rail. (Mont Vernon)
- Incentives to buy EVs and more public charging stations (Pembroke)
- How do we include low income folks in the transition to (and benefits of) EVs? Most will not be able to access financing for an EV.
- More EV charging stations. Also, more EV service tech supports are needed—so do we need new college courses?
- Move away from fossil fuel vehicles (Littleton)
- Incentivize the foundation and development of diversified local farms to reduce transportation costs related to agriculture.
- The only way to fairly tax EVs for road taxes is to retroactively (annually) tax based on the weight of the EV and the number of miles driven. Estimating average miles and taxing a flat rate is a disincentive.
- Incentives for local police departments to transition to EVs (Littleton)
- Support EVs and charging infrastructure
- Be cautious to prevent electric charging stations from increasing CO2 emissions or increase energy costs, which could happen if charging happens at peak times when the dirtiest plants are turned on.
- Prioritize rail over buses
- Look at UNH transportation system, the largest public transport provider in the state. We can restructure NH transport to better serve our communities and give better opportunity to cut personal emissions. We need a statewide fleet to help these communities. (Durham)
- Addition of residential EV charging station with ability to store energy, so demand on grid doesn't increase (Durham)
- Support expansion of EV charging network, including but not limited to the 15% VW settlement fund.
- Phase in EV registration fees over time so as to realize equity goals without retarding the market.

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Join the ZEV mandate with our New England neighbors.
- Use maximum 15% from VW settlement for EV charging infrastructure, particularly in the institutional and tourism sectors. Recognize and plan for fact that the transition to EVS is happening faster than first envisioned in 2014 when the original strategy was written.
- Tourist based economy should look into investing in fast charging EV stations or invest in installing EV charging stations at tourist hotspots.

ENERGY EFFICIENCY

- Peak demand is driving utilities to provide higher electric and gas costs in NH – some of the highest in the USA. Reducing peak demand for electricity enables utilities to purchase less power from expensive electric power and polluting sources, lowering cost. Significantly increased investment in electric and thermal storage systems will lower peak demand for electricity and gas. This benefits NH residents and businesses. Increase building codes to each net zero for residential and small commercial buildings (no or very little additional cost to building owner)
- Efforts to support the continuity of incentives throughout the year and year-to-year should be pursued as well as consolidation of programs to support energy financing.
- We need rebates for weatherization and renewable energy. (Northwood)
- Develop a statewide program or law that makes it as easy and inexpensive as possible for a business or residence or town to make their properties energy efficient. Similar to the PACE program. (Northwood)
- Conservation of energy must be a priority, especially in low income situations with incentives. Set goals for the state as others have done (California). (Concord, NH)
- Target replacement cycle improvements with energy storage like geothermal and batteries.
- NH needs a PACE program. Also need to establish a Green Bank to finance more homes as well as commercial businesses.
- The need exists for greater use of cold climate heat pumps to reduce local carbon emissions. NH needs the public to decide best ways to heat and cool their homes for reducing oil and gas consumption. (Bedford, NH)
- The state should be encouraging towns to reduce their energy usage. Perhaps through offering more money for schools for essential services.
- State needs to invest in more education to enable wise/cost effective decisions. We also need to uplift the state building code to stay current with the standards. (Dover, NH)
- Aggressively support, subsidize, or pay for energy efficiency. Reducing energy usage reduces energy imports and creates jobs. Start by taking larger portion of RGGI funds.

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Adopt the 2015 energy efficiency codes without amendments! Train builders and inspectors to understand, implement, and enforce energy efficiency.
- Increase weatherization education and funding for low income citizens. Consider training programs where folks can educate their neighbors in exchange for free efficiency measures in their home. It gives them job training for later and people will relate better to their neighbors and trust them more.
- Incent all “heat pump” technologies equally: cold climate heat pumps, geothermal heat pumps, air-to-water heat pumps. (Enfield, NH)
- We need to help residential and commercial renters to implement energy efficiency. (Bedford, NH)
- Green loans to help homeowners acquire capital to perform efficiency measures would be more prevalent if lenders had more incentive to learn and make changes. Appraisers, too, need some incentive to learn and use green appraisal techniques. This can be done with creation of regulation and lender/appraiser incentives. The bankers industry regulations can be expanded. Monetary incentives can come from savings due to the efficiency gained by implementation of measures. (Goffstown, NH)
- We need to find a way to implement energy efficiency measures in our existing building stock, without the help of the utilities.
- Keep energy efficiency as the top priority. Increase funding for energy efficiency projects, perhaps through RGGI funding. Maintain our RPS goals.
- Provide more state money for energy efficiency. Use all RGGI money for projects, not rebating it on electric bills.
- Expand the encouragement of town adjustment to property education to include geothermal and battery storage to PV, thermal, water, and wind.
- Energy efficiency is the least expensive fuel now and especially into the future as prices rise. (Dunbarton, NH)
- Support energy efficiency including necessary upfront engineering and auditing.
- Focus incentives on result metrics, not component specifications. (Hollis)
- Climate disruption is real. While NH cannot fix this alone, we must be responsible and do our part. If we do so intelligently, we can also benefit economically. (Milford, NH)
- Consistent building codes that require efficient and renewable sources. (Hollis, NH)
- Expand utility programs to include and manage demand response (storage) solutions
- Energy efficiency is just the best. (Dover, NH)
- We need more long-sighted energy efficiency. Ratepayers don’t really need 2 cents back on their bills, whereas people in need do need tangible help to conserve energy in their leaky homes. (Washington, NH)
- Encourage a smart grid and financial support for home insulation in low income families. (Center Sandwich, NH)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- We need to keep fossil fuels in the ground and use those sources that are renewable. Efficiency is less important than the environmental consequences of the fuel source. (Holderness, NH)
- We need continuous state and federal incentives to encourage action. (Kensington, NH)
- Social/environmental justice issue which will also save money. Exeter has 900 mobile homes (13.9% of total homes). Find a way to help button up these inefficient style homes without burdening the owners who may be on a fixed income or working poor, disability, etc. (Exeter, NH)
- Keep energy efficiency standards and a focus on conversation.
- Over 30,000 people qualify for weatherization help from federal funds, but only 220 per year receive this help. State funds should assist with this. (Sanbornton, NH)
- Improve energy efficiency for residential and commercial customers. Fuel assistance should be used for energy efficiency instead of paying money for oil or gas. We also need incentives for heat pumps (air source). (Sandwich, NH)
- ACP payments need to be increased through increasing the RPS so that more energy efficiency and distributed generation can be funded. We have to stop thinking that this is providing subsidies. It levels the playing field in ways that benefit NH's citizens. (Pembroke, NH)
- School administrative units in the state need to be educated on how to discuss school building upgrades w/ school boards to use less energy (saving taxpayer dollars) while improving the educational environment for our kids. (Madison, NH)
- Energy efficiency is without a doubt the cleanest, cheapest mechanism to save NH dollars, keep income + jobs in the state, and benefit all ratepayers. RPS needs to be fully funded and targeted not to fuel assistance but to energy efficiency that benefits year on year. (Madison, NH)
- Adopt the new energy code, without amendments, every 3 years. (Grafton, NH)
- Ask NH PUC and regulated utilities to use NHSaves funds for all energy savings, including electric, natural gas, propane, oil, etc for all types of customers. (Concord, NH)
- Emphasize energy efficiency as it is the lowest cost option: negawatts! (Laconia, NH)
- Mandate all heating (water, air, etc) systems be automatically adjustable for the fuel/air ratios to optimize combustion and reduce state emissions. (Nashua, NH)
- Catch up with North European standards for insulation and building codes, so that all new buildings can approach net-zero. (Enfield, NH)
- Encourage more training for "conventional" builders on new materials, for insulation and ventilation
- No fossil fuels ever.

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Energy efficiency should be priority #1 in terms of policy choices. Rental owners should not be able to rent and receive tax exemptions for energy hogs. Work with educating builders. (Canaan, NH)
- Support RGGI. Support local/state initiatives to engage in the Paris Climate Agreement. No pipelines in NH. (Pelham, NH)
- All homes need an energy efficiency rating like cars do with MPG. Example: Home Energy Score with US DOE (score like MPG, recommendations to improve, estimated energy savings). (Concord, NH)
- I want more efficiency for NH – we should be #1 in the U.S! (Concord, NH)
- Energy funding should be technology neutral. Eliminate state based policies that are technology biased. Use performance standards that reward combinations of measures to get the lowest cost per square foot. Leave the ingenuity to the market, not the government programs.
- Can we increase rebates to increase residential energy efficiency programs by home audits, etc.
- Annual increasing standards for new construction. (Weare, NH)
- Promote building codes that advance energy efficiency.
- Encourage utilities to continue to offer Button-Up NH workshops – person to person interaction with consumers by utility reps is welcomed by consumers to demystify their energy efficiency programs and applications.
- Building code updates: insulations, lighting (all LED)
- Strengthen efficiency requirements for residential and commercial buildings, and electrical consumer devices. Develop educational resources for builders and realtors.
- Improve insulation of the houses. (Portsmouth, NH)
- Low temperature building heat, which enables condensing boiler and furnace operation should be encouraged. For instance, it should not be encouraged or legal for homes to be built with baseload heat that requires 180 degree water. We cannot increase heating system efficiency by replacing boilers alone. The distribution system must be updated. (Scott Nichols, Lyme, NH)
- Consider energy the first resource for the state. Fully fund the emerging EERS to enable the state to procure all cost effective energy efficiency.
- Create a NH energy efficiency utility, similar to Efficiency VT. Or provide funds to each municipality to hire an energy coordinator (Lebanon)
- Emphasis on energy efficiency measures that benefit low income communities (Hanover)
- More efficient building codes (Portsmouth)
- Find a good way to convey the energy efficiency of a home into that home's value (Portsmouth)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Energy efficiency needs to be valued in NH just like generation is: it is the cheapest form of energy. Needs to be valued correctly. (Portsmouth)
- EE is a critical first step towards grid modernization. The EERS is an exciting first step forward
- We need to be as efficient as possible in our use of energy. We need to learn how to button up which could make new jobs and make NH a place where young families want to be. (Keen)
- All RGGI funding should go into funding EE programs. We should take the RGGI funding out of the hands of the Legislature. (Rindge)
- Aim for performance standards in our EE grants. (Peterborough)
- Utilities, regional planning entities, and the state must foster, sponsor, and fund rebates for “custom” energy efficiency investments and better educate businesses about EE technologies. (Nashua)
- Prioritize new EPA stoves and pellet stoves and boilers (Peterborough)
- NH’s lack of focus on EE is embarrassing and shameful. Our neighbors are leaving us behind. What can we do to fix that? (Peterborough)
- EE is where it all starts, and the only way to ensure that renewable energy options work at their maximum capacity. (Strafford)
- EE must be prioritized and incentivized. Need a financing mechanisms that can be cash flow neutral (where savings are equal to or less than loan payment) and includes interest rate buy-downs, longer loan terms, and/or a revolving loan fund. (Sutton)
- Continue incentives for energy conservation and alternative energy for the residential sector (Sanbornton)
- EE should be the first fuel. Most EE dollars spent stay in state while a majority of solar dollars are sent out of state to China.
- I’d like more support (not necessarily financial) to educating citizens about renewable energy. Many non-profits are involved with this but they could use some high level recognition for their work (Center Harbor)
- Building codes and designs need to be updated and enforced (LEED, net-zero, etc.) with existing new technology. (Nashua)
- More EE to save money and create USA jobs (Pembroke)
- Funding should go towards mobilizing EE programs in municipalities, particularly in increasing access to education programs. There is so much uncertainty for consumers that could benefit most from the programs.
- Mandate EE for industry.
- EE will produce new and better jobs and will help keep growth in state. (Littleton)
- Figure out a way to have the five individual [municipal] utilities can offer incentives for EE to their customers. (Littleton)

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Incentivize local governments to adopt latest building and energy codes and use some funding mechanism to educate and support code officers to enforce.
- Increasing EE and expanding the programs to increase EE will in the long run save money, reduce energy use in the state and be beneficial to all. Many homes in New England are very old and leaky; heating these homes in the colder months can be very expensive. (Newmarket)
- Our energy future relies on increasing EE, not just on restructuring our infrastructure. Not only is this an expanding industry (EE), but our grid will rely on the capacity to store and effectively discharge that stored energy. (Durham)
- Fund EE rebates and fix heat index to more accurately qualify projects. Also, support towns and schools with Pay for Performance projects.
- All government/municipal facilities should be moved toward net-zero performance standards as soon as possible. Bolster building codes to support efficient building standards.
- Replace the 2009 Energy Code with the most recent IECC energy code (2015 or 2018), with required blower door testing of new residential construction and required commissioning of new commercial buildings. Recognize and fund technical assistance awareness, building behavior change, education and other “soft” approaches to energy efficiency.
- Create an entity such as Vermont’s “Efficiency VT.”
- Stay in RGGI and use all funds for EE. Also, create a goal for statewide energy savings and demand utilities incentivize all EE that costs less than generation. Policy change is essential. EE incentives and goals drive jobs up and increases comfort, and reduces costs. (Lebanon)
- There should be a statewide policy to capture all cost-effective energy efficiency. The current EERS should be strengthened in the following three-year plan.
- NH should adopt a Home Energy Score that is a part of the info provided to home buyers on MLS listings.
- Invest state resources in making state government operations more energy efficient, using societal cost of carbon in calculation of cost-effectiveness.
- Shift state LIHEAP funds to expand WAP where possible. (Bow)
- EE is the biggest bang for the buck – we should not eliminate these programs unless we have in place alternate means of keeping them alive.
- Local NH produced energy is not being fully utilized, what can be done to produce more, small-hydro, biomass, biofuel, solar, wind, and EE; regulations may need to change.
- EE is something that can be implemented at all levels of society. We currently waste much of the energy we pay to use. This can be done with and without new technology and incentives for this will greatly increase the adoptability.

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- More funding for programs that aid citizens, especially low income households who are the most vulnerable to disproportionate costs of energy. Also prioritize education programs on energy efficiency
- The state could look at ways of rewarding utilities for an investment in efficiency. Potentially “avoided costs of service” rate for proven reductions.
- EE must be the FIRST thing we look to – it is the most cost-effective choice. We need NHSaves and each utility company to allocate more funding to the residential HPWES program and expand their definition of “cost-effective.” The Home Heating Index calculator is clumsy and the HPWES process is NOT user-friendly and turns NH residents away from the program.
- Look to Vermont’s electric efficiency utility (VEIC) for example.
- EE is the first step to take. Reduce load of structures to reduce size of the heating system and electric requirement (Sanbornton)
- Yes to EE! Before we spend a dime on renewables let’s spend a dollar on EE. Also, need to improve building codes.
- There needs to be clear recognition that EE is the cheapest power supply resource for the state, and also the lowest costs “fuel” resources. The state and legislature should clearly embrace and communicate this as a fact and incorporate this concept in legislation and regulations. Funding resources to support more EE should be pursued, including 100% of RGGI.
- Policy should focus on economic and environmental benefits of EE, this is the best economic bang for the buck we can achieve of any energy investment. (Deerfield)
- Utilities/State needs to promote education to inform consumers about the possibilities of getting net-zero homes and the return on investment dollars. Small and large appliance rebate programs are not enough to produce the needed changes. (Rollinsford)
- State support for volunteer EE programs. The current programs are woefully ineffective. Resources available to train and provide materials could jump start local weatherization programs for low income households.
- The most cost-effective energy source is EE; education and incentives must be expanded.
- Need more funding to clean up the back log of making homes more energy efficient for the economically disadvantaged. Also street lights, buildings (town, church, residential, etc.) should reduce energy use at a much faster rate. (Washington)
- We must invest in our buildings to prepare them to be more efficient. RGGI funds can go to EE! (Keene)
- EE is a cost saver for buildings and systems, but also across the NH grid. Expands retrofitting is a job-creator. Consider an “Efficiency Utility” eg. Efficiency VT (Keene)

NEW HAMPSHIRE
SUSTAINABLE ENERGY
ASSOCIATION

NHSEA | 54 Portsmouth Street | Concord, NH 03301 | 603-22-NHSEA | www.nhsea.org

- Rigorous energy code for new construction and substantial upgrade the R-value and U-value requirements for new construction (Manchester)
- Increase awareness of existing energy efficiency programs, Fund existing EE programs at increased level and improve the EE programs.